4 OTHER REQUIRED SECTIONS

4.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

CEQA Section 21100(b)(2)(A) states that an EIR shall include a detailed statement setting forth "[i]n a separate section…[a]ny significant effect on the environment that cannot be avoided if the project is implemented." State CEQA Guidelines Section 15126.2(b) requires that an EIR describe any significant impacts, including those that can be mitigated but not reduced to a less-than-significant level. In addition, Code of Federal Regulations (CFR) Title 40, Section 1502.16 (40 CFR 1502.16) and Section 3.7.2 of the TRPA Code of Ordinances require an EIS to identify any significant adverse environmental effects that cannot be avoided if any of the alternatives are implemented. Chapter 3 of this DEIR/DEIS/DEIS addresses the potential environmental effects of the project alternatives for all applicable environmental topic areas and recommends mitigation measures, as necessary, to mitigate project effects to the extent feasible. The contributions of project alternatives to cumulative impacts are discussed in Section 3.18, "Cumulative Impacts," of this DEIR/DEIS/DEIS.

If a specific impact cannot be reduced to a less-than-significant level, it is considered a significant and unavoidable impact. The action alternatives (Alternatives 1–4) would have the following significant and unavoidable environmental impacts (direct, indirect, and cumulative):

- Impact 3.4-5 (Alt. 1): Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities
- Impact 3.4-6 (Alts. 1, 2, 3, 4): Short-Term Disturbance of Sensitive Communities (Jurisdictional Wetlands, Riparian Vegetation, and SEZ) Resulting from Construction Activities
- Impact 3.4-8 (Alts. 1, 2, 3, 4): Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities
- Impact 3.5-4 (Alt. 3): Long-Term Disruption of Fish Passage/Migration
- Impact 3.9-1 (Alts. 1, 2, 3, 4): Short-Term Risk of Surface Water and Groundwater Degradation during Construction
- Impact 3.9-2 (Alts. 1, 2, 3, 4): Short-Term, Project-Related Risk of Surface Water Degradation Following Construction
- Impact 3.10-3 (Alt. 1): Potential Conflict with Regional Conservation Strategy for Tahoe Yellow Cress
- Impact 3.13-2 (Alts. 1, 2, 3, 4): Short-Term Construction Impacts of Recreation Facilities That May Have an Adverse Physical Effect on the Environment
- Impact 3.13-5 (Alt. 1): Long-Term Operation and Expansion of Recreation Facilities That May Have an Adverse Physical Effect on the Environment
- Impact 3.14-3 (Alt. 1): Potential for Long-Term Degradation of the Scenic Quality of Shoreline Travel Unit 33 and Mapped Scenic Resources Related to the Upper Truckee River Bridge and Ramps
- Impact 3.18-C9 (Alts. 1, 2, 3, 4): Cumulative Biological Resources: Vegetation and Wildlife—Construction-Related Effects on Special-Status Plants and Sensitive Habitats (Jurisdictional Wetlands, Riparian Vegetation, and SEZs)

- Impact 3.18-C10 (Alt. 1): Cumulative Biological Resources: Vegetation and Wildlife—Long-Term Effects on Special-Status Plants and Sensitive Habitats (Jurisdictional Wetlands, Riparian Vegetation, and SEZs)
- Impact 3.18-C11 (Alts. 1, 2, 3, 4): Cumulative Biological Resources: Vegetation and Wildlife—Short-Term Effects on Common or Special-Status Wildlife Resources and Wildlife Movement Corridors
- Impact 3.18-C28 (Alts. 1, 2, 3, 4): Cumulative Geomorphology and Water Quality—Short-Term Risk of Surface Water or Groundwater Degradation during Construction
- Impact 3.18-C29 (Alts. 1, 2, 3, 4): Cumulative Geomorphology and Water Quality—Short-Term Risk of Surface Water or Groundwater Degradation Following Construction
- Impact 3.18-C33 (Alt. 1): Cumulative Land Use—Potential to Physically Divide an Established Community or Conflict with Land Use Plans, Policies, or Regulations
- Impact 3.18-C38 (Alt. 1): Cumulative Recreation—Construction or Expansion of Recreational Facilities That May Have an Adverse Physical Effect on the Environment
- Impact 3.18-C40 (Alt. 1): Cumulative Scenic Resources—Short-Term and Long-Term Effects of Construction Activities and Additional Facilities on Existing Visual Character and Quality

As discussed in Table 2-6, the Conservancy will implement several environmental commitments to reduce potential environmental impacts. Where feasible mitigation exists, it also has been included to reduce these impacts; however, the mitigation and/or environmental commitments would not be sufficient to reduce these impacts to a less-than-significant level.

4.2 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Section 21100(b)(2)(B) states that an EIR shall analyze in a separate section significant and irreversible environmental changes. State CEQA Guidelines Section 15126.2(c) provides the following guidance for an analysis of the significant and irreversible changes of a project:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

40 CFR 1502.16 also states that an EIS shall analyze irreversible and irretrievable commitments of resources such as soils, wetlands, and waterfowl habitat. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. These resources cannot be recovered or recycled or are consumed or reduced to unrecoverable forms. As discussed in Chapter 2, “Project Alternatives,” of this DEIR/DEIS/DEIS, implementing Alternative 1 would involve constructing recreation and public access facilities (e.g., kiosks, bridge, boardwalk, bicycle paths, and pedestrian trails), reestablishing and improving floodplain processes through a combination of approaches, and restoring various habitats. A potential “maximum” level of recreation and public access infrastructure would be constructed under Alternative 1. Constructing recreational facilities under Alternative 1 would commit future generations to the use of those facilities in the study area because some of the facilities (e.g., kiosks, bridge) are relatively permanent structures.

Implementing Alternative 2 also would involve constructing recreation and public access facilities, reestablishing and improving floodplain processes, and restoring various habitats; however, a relatively minimal level of public access and recreation infrastructure would be constructed under Alternative 2. Therefore, although some components of Alternative 2 would commit future generations to the proposed uses to some extent, the commitment would be less than under Alternative 1.

Both Alternatives 3 and 4 would involve a moderate amount of recreational development, habitat restoration, and restoration of the Upper Truckee River and its floodplain. Implementing either Alternative 3 or 4 would involve constructing a kiosk, bicycle paths, and pedestrian trails; however, neither alternative would include the bridge and connected boardwalk that would be constructed under Alternative 1. Implementing Alternative 3 or 4 would commit future generations to the proposed uses under those alternatives; however, the commitment would be less than under Alternative 1.

Implementing Alternative 5 (the No-Project/No-Action Alternative) would involve no significant irreversible or irretrievable commitments of resources.

Although the selection of one of the action alternatives would commit future generations to the approved uses, the commitment could for the most part be reversed. Changes in the use or restoration of natural resources in the study area under Alternative 2, 3, or 4 would be feasible if future decisions by the Conservancy directed such changes. Therefore, the impacts on land use related to Alternative 2, 3, or 4 would not be irreversible. Construction of some of the recreational facilities under Alternative 1 (e.g., kiosks, bridge) would be more difficult to remove and would largely commit future generations to those uses.

Implementing Alternative 1, 2, 3, or 4 would result in the irreversible and irretrievable commitment of energy and material resources during construction and operations. Energy would be expended in the form of gasoline, diesel fuel, and oil for equipment and transportation vehicles. Building materials for the project would include rocks, sand, asphalt, concrete, steel, and other materials. Construction activities would generate nonrecyclable materials, such as solid waste and construction debris. The use of these nonrenewable resources is expected to account for a very small portion of the resources in the Tahoe Basin and their area of origin (generally, northern California and Nevada) and would not affect the availability of these resources for other needs in the basin.

4.3 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Section 3.7.2 of the TRPA Code of Ordinances and 40 CFR 1502.16 require a discussion of the relationship between a project's local short-term uses of the environment and the maintenance and enhancement of long-term productivity. The following discussion addresses how implementing the project would affect the short-term use and the long-term productivity of the environment.

The study area is composed of land that may be needed for project implementation or may be required for access during construction. It includes the downstream reaches of Trout Creek and the Upper Truckee River, adjacent wetland and uplands habitats, more than three-fourths of a mile of Lake Tahoe shoreline, and the Lower West Side Wetland Restoration Area. The study area is easily accessible and is used extensively by the public.

Implementation of any of the action alternatives (Alternatives 1–4) would result in short-term impacts in the study area. These impacts would include reduced recreational access to the study area, local traffic and circulation interference, increased ambient noise levels, exceedance of the turbidity standards, and disruption of wildlife use of some habitats. Because these impacts would occur only during construction and for a short period after, they are not expected to adversely affect the long-term productivity of the natural environment.

The project's short-term effects would be related to the project's long-term beneficial effects on socioeconomic productivity. Implementing any of the action alternatives (Alternatives 1–4) would improve public access and recreational opportunities and experiences in the study area, which could attract additional visitors, potentially increasing commercial activity at local businesses. Therefore, implementing any of the action alternatives could result in a slight increase in long-term socioeconomic productivity. A substantial increase in revenues or long-term productivity in the study area or South Lake Tahoe area would not result under any of the action alternatives. Implementing Alternative 5 (the No-Project/No-Action Alternative) would result in long-term socioeconomic productivity similar to existing conditions.

The project's short-term effects also would be related to the project's long-term beneficial effects on river and floodplain ecosystem productivity (e.g., on the services produced by ecosystems, including sediment and nutrient retention and decreased erosion rates, and provision of fish, wildlife, and plant habitats). Increased sediment and nutrient retention would also have beneficial effects on conditions in Lake Tahoe. Most of these beneficial effects would be similar among the action alternatives, but some substantial differences would exist among these alternatives. The floodplain area inundated by a two-year recurrence flow (at median lake levels) would be much greater under Alternative 2 or 3 than under Alternative 1 or 4, and enhanced core habitat area would be greater under Alternative 2 or 4 than under Alternative 1, and it would be smallest under Alternative 3. While Alternative 1 does enhance the core habitat area it also includes a bridge that increases access to sensitive Tahoe yellow cress habitat and therefore has a long term significant and unavoidable impact to Tahoe yellow cress. Implementing Alternative 5 (the No-Project/No-Action Alternative) would result in the continuation of existing adverse conditions and trends in the productivity of river and floodplain ecosystems.

4.4 GROWTH-INDUCING IMPACTS

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(d) of the State CEQA Guidelines provides that a project alternative would be growth inducing if it could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Direct growth inducement would result if a project involved, for example, the construction of new housing. Indirect growth inducement would result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises), involved a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services, or removed an obstacle to housing development. Examples of growth-inducing actions include developing water, wastewater, fire, or other types of service areas in areas not previously served; extending transportation routes into previously undeveloped areas; and establishing major new employment opportunities.

Direct growth would not be induced under any of the project alternatives because none of the project alternatives propose additional housing. In addition, implementing the project would not indirectly induce growth because substantial new permanent employment opportunities would not result under any of the action alternatives. Construction of Alternative 1, 2, 3, or 4 would generate short-term employment opportunities; the work would be temporary and would occur over several years, with certain activities starting and stopping for shorter durations within that period. Alternative 5 (the No-Project/No-Action Alternative) would not involve any work. Because of the limited number and type of jobs that would be generated and the temporary nature of those jobs, it is anticipated that the jobs would be filled using the existing local employment pool. Existing available housing in the region would easily accommodate any workers who relocate from outside the area, if needed. The number of permanent employees would not increase under any of the alternatives. Therefore, none of the alternatives would have an effect on the local workforce or would significantly affect employment.

In addition, the project would not involve the provision of any new services or construction of new utilities to the study area that would have more capacity than needed for uses currently being proposed, and no road improvements are proposed as part of the project. For these reasons, indirect growth-inducing impacts resulting from implementing the project would be less than significant.

As discussed in Section 3.15, "Socioeconomics, Population and Housing, and Environmental Justice," a slight increase in economic growth may be realized under Alternative 1, 2, 3, or 4 because each would improve public access and recreational opportunities and experiences in the study area, which could attract additional visitors. However, this increase would be expected to be minimal, resulting in no significant indirect growth-inducing effects. Implementing Alternative 5 (the No-Project/No-Action Alternative) would result in no change in economic growth because no changes to public access or recreational opportunities or experiences would occur.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE/ENVIRONMENTALLY PREFERRED ALTERNATIVE

NEPA requires that the alternative considered to be environmentally preferable be identified. "Environmentally preferable" is used to describe the alternative that would best promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act—that is, it would cause the least damage to the biological and physical environment. In addition, the "environmentally preferable" alternative best protects, preserves, and enhances historic, cultural, and natural resources. Although U.S. Council on Environmental Quality regulations require that the environmentally preferred alternative be identified, they do not require that this alternative be adopted.

Section 101(b) of NEPA states:

> *In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate federal plans, functions, programs and resources to the end that the Nation may—*
>
> *(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;*
>
> *(2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;*
>
> *(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;*
>
> *(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;*
>
> *(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and*
>
> *(6) enhance the quality of renewable resources and approach the maximum attainable recycling of dependable resources.*

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

The TRPA Compact and Code of Ordinances do not specifically call for identifying an environmentally superior or preferred alternative; however, they rely on other state and federal regulations and when evaluating alternatives, TRPA identifies the alternative that would best maintain and/or achieve environmental thresholds (discussed in Section 4.5, "Consequences for Environmental Threshold Carrying Capacities," below). The

Compact and the Code of Ordinances allow for the consideration of social, technical, or economic impacts when an alternative is selected.

Based on the analysis of impacts on resources in Chapter 3, the action alternatives present trade-offs related to overall environmental advantages. Implementing Alternative 1, 2, 3, or 4 would involve restoring the river and its floodplain, which would improve long-term water quality, increase the amount and improve the quality of aquatic and floodplain habitats, and restore the stream environment zone. These alternatives would have short-term and interim impacts on water quality that could not be avoided because of the strict turbidity criteria used to determine a significant and unavoidable impact (Section 3.8) and to sensitive habitats and wildlife (Section 3.4). Implementing Alternative 1 would also create long-term significant and unavoidable scenic impacts and Tahoe yellow cress impacts related to bridge construction (Sections 3.4 and 3.14). Implementing Alternative 3 could have a long-term significant unavoidable impact to fish passage through the study area during low flow periods if channel disconnectivity occurs (Section 3.5). Implementing Alternative 5 (the No-Project/No-Action Alternative) would avoid the adverse impacts generated by construction of additional recreational facilities; however, the long-term water quality and habitat benefits would not occur. Consequently, Alternative 5 (the No-Project/No-Action Alternative) is not the environmentally superior or environmentally preferred alternative.

Of the action alternatives, Alternative 2, New Channel—West Meadow (Minimum Recreation Infrastructure), is the environmentally superior alternative because it involves a relatively minimal level of impacts associated with public access and recreational infrastructure while including river, lagoon, floodplain, and beach and dune restoration benefits comparable to or greater than those under Alternative 1, 3, or 4. However, unlike under the other action alternatives, implementing Alternative 2 would not provide recreation infrastructure to redirect public access from sensitive areas. Compared with the other action alternatives, this alternative minimizes construction activities and costs, maintenance and staffing responsibilities and costs, disturbances associated with infrastructure construction, and formal public access to locations throughout the study area.

Although Alternative 2 would be environmentally superior, it includes non-environmental trade-offs. Implementing Alternative 2 would provide the least benefit for public access and recreation opportunities and experiences.

4.6 CONSEQUENCES FOR ENVIRONMENTAL THRESHOLD CARRYING CAPACITIES

TRPA Threshold Carrying Capacities (thresholds) 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 withstand before irreparable damage occurs. Thresholds have been established for nine resource areas:

- air quality;
- water quality;
- soil conservation;
- vegetation preservation;
- fisheries;
- wildlife;
- scenic;
- noise; and
- recreation.

The thresholds and the indicators used to measure how well a project complies with the thresholds were adopted in 1987 and remain in effect today. The analysis of attainment status (i.e., whether each threshold is being achieved and/or maintained) is updated approximately every five years and was most recently assessed in the *2011 Threshold Evaluation* (TRPA 2012).

An evaluation of the effects of each of the project alternatives on the thresholds is provided below for the nine resource areas. For each threshold, it is stated whether the threshold is applicable to the project and, if so, what the consequences of implementing each alternative would be on each applicable threshold. The evaluation of the project alternatives' effects on the thresholds focuses on long-term changes in attainment. Short-term impacts associated with construction of each of the alternatives would be temporary and intermittent and would not change the attainment status of any of the thresholds. Thresholds in "attainment" are those meeting the adopted TRPA standard, and thresholds in "non-attainment" are not meeting the TRPA standard. Thresholds are designated as "unknown" when TRPA did not have adequate data to make a determination of attainment.

4.6.1 AIR QUALITY

Eight numerical air quality thresholds have been established by TRPA:

- AQ-1, Carbon Monoxide;
- AQ-2, Ozone (ROG [reactive organic gases] and NO_X [oxides of nitrogen]);
- AQ-3, PM_{10} [respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less];
- AQ-4, Visibility;
- AQ-5, U.S. 50 Traffic Volumes;
- AQ-6, Wood Smoke Emissions;
- AQ-7, Vehicle Miles Traveled; and
- AQ-8, Atmospheric Nutrient Loading.

In 2006, the AQ-1, AQ-2, AQ-3, and AQ-7 thresholds were designated "non-attainment"; the AQ-4 and AQ-5 thresholds were designated "attainment"; and the AQ-6 and AQ-8 thresholds were designated "unknown." In 2011, the AQ-1 threshold was in attainment, AQ-2, AQ-3, AQ-4, AQ-5 and AQ-7 thresholds were still in "non-attainment," AQ-6 and AQ-8 are still designated as "unknown." The thresholds for air quality are established for long-term operational emissions only. Therefore, temporary, short-term construction-related emissions are not considered in determining compliance with TRPA thresholds.

As stated for Impact 3.2-2 (Alternatives 1–4), implementing the project would not cause any long-term operational emissions thresholds set by TRPA to be exceeded. Thus, long-term operational emissions of criteria air pollutants (ozone [ROG and NO_X] and PM_{10}) would not violate the air quality standards established by thresholds AQ-2 and AQ-3. Subsequently, because the AQ-4, AQ-7, and AQ-8 thresholds are based on the formation of criteria air pollutants (visibility: ozone and PM_{10}; vehicle miles traveled: ozone; and atmospheric nutrient loading: NO_X), they also would not be violated by long-term project operation.

As stated for Impact 3.2-3 (Alternatives 1–4), implementing the project would not cause long-term levels of service to deteriorate at any intersection or on any route, including U.S. 50. Thus, long-term operational (local) emissions of carbon monoxide by mobile sources and resulting changes in level of service (i.e., on U.S. 50) related to the project would not violate the air quality standards established by thresholds AQ-1 and AQ-5.

No long-term operational sources of wood smoke emissions are associated with any of the project alternatives. Thus, the project would not affect threshold AQ-6.

4.6.2 WATER QUALITY

Seven narrative and numerical water quality thresholds have been established by TRPA:

- WQ-1, Littoral Lake Tahoe, Turbidity;
- WQ-2, Pelagic Lake Tahoe, Winter Water Clarity;
- WQ-3, Pelagic Lake Tahoe, Phytoplankton Primary Productivity;
- WQ-4, Tributaries, Tributary Water Quality;

- WQ-5, Surface Water, Runoff Water Quality;
- WQ-6, Groundwater; and
- WQ-7, Other Lakes.

None of the project alternatives (Alternatives 1–5) would produce a discernible effect on four of the TRPA water quality thresholds: WQ-1, Littoral Lake Tahoe, Turbidity (attainment); WQ-2, Pelagic Lake Tahoe, Winter Water Clarity (non-attainment); WQ-3, Pelagic Lake Tahoe, Phytoplankton Primary Productivity (non-attainment); and WQ-7, Other Lakes (non-attainment). Therefore, these thresholds are not discussed further.

Water quality thresholds are applied basinwide; that is, the entire Tahoe Basin is considered in attainment or in non-attainment. However, spatial data by stream, lake, or other water body are tracked, and local attainment status is reported by TRPA. No spatially discrete targets have been established. The three directly related water quality thresholds all have a "non-attainment" status. Implementing any of the action alternatives would not adversely affect or interfere with attainment of any of TRPA's seven water quality thresholds. The relevant thresholds are discussed in more detail below.

WQ-4, Tributaries, Tributary Water Quality

The TRPA tributaries threshold is intended to attain state standards for nitrogen, phosphorus, iron, and a 90th percentile value for suspended sediment of 60 milligrams per liter. The WQ-4 threshold is in non-attainment. Using the 2011 threshold evaluation, the status is somewhat worse than target, and the trend is moderate improvement (TRPA 2012).

A major goal of the Upper Truckee River and Marsh Restoration Project is the reduction of fine sediment (and associated nutrients, including nitrogen, phosphorous, and iron) production and transport in the study area. This goal is addressed by the design elements of Alternatives 1–4 that reduce fine sediment sources in the study area and promote fine sediment retention on the Upper Truckee River floodplain. Although the magnitude of both the reduction in fine sediment generated and the increase in sediment retained on the floodplain cannot be accurately quantified, the reduction of sediment sources and increased sediment retention in the study area would reduce the transport of fine sediment to Lake Tahoe, directly supporting the TRPA goal of decreasing the sediment load to the lake. A significant contributing element for the reduction of sediment production is the creation of more stable channel segments and the removal/abandonment of existing unstable channel segments. Implementing Alternative 1, 2, 3, or 4 would increase the length of "geomorphically sized" (and inherently more stable) channels through modifications of existing channel segments and construction of new segments. The channel geometry in the improved segments would be designed to reduce channel instability and related erosion of the channel bed and banks. With the increase in the length of "geomorphically sized" channels (relative to existing conditions) used as a measure of improved channel stability, the action alternatives would be ranked in descending order as follows: Alternative 1 (6,200 feet), Alternative 2 (5,650 feet), Alternative 3 (5,080 feet), and Alternative 4 (3,400 feet).

Additionally, implementing any of the action alternatives would promote increased retention of sediment in the study area by improving floodplain connectivity for the Upper Truckee River and by increasing the frequency and duration of channel overbanking and the area of floodplain inundation during high-frequency flooding events. The increased floodplain connectivity (and opportunity for floodplain retention) would be realized as a combination of raising the existing channel bed (Alternatives 1, 2, and 3) and constructing inset (lowered) floodplain areas or terraces (Alternatives 1, 2, 3, and 4). The effect of both of these actions would be to increase the area of the study area more frequently inundated during seasonal high-flow events. With the estimated increase in the area inundated during a two-year flow event used as a measure of increased opportunity for deposition of fine sediment in the study area, the action alternatives would be ranked in descending order as follows: Alternative 3 (91 acres), Alternative 2 (61 acres), Alternative 4 (17 acres), and Alternative 1 (11 acres).

Each action alternative would also include installation of bank protection for the Upper Truckee River downstream of the U.S. 50 bridge (generally between River Stations 0+00 and 12+00). The bank protection would

stabilize eroding banks or banks with a high susceptibility to erosion, thereby reducing sediment production and turbidity. Based on the length of protected bank, implementing Alternative 1 or 4 would provide the most protection, and implementing Alternative 2 or 3 would provide the least.

As described above, implementing any of the action alternatives would reduce sediment sources and provide opportunities for increased floodplain retention relative to existing conditions. These improved conditions would be expected to reduce fine sediment loading to the Upper Truckee River in the study area and result in the increased retention of fine sediment transported into the study area. In general, implementing any of the action alternatives would contribute to attainment of the WQ-4 threshold.

Alternative 5 (the No-Project/No-Action Alternative) would not include any specific measures to be implemented in the study area that would reduce sediment and nutrient loading to the Upper Truckee River and, ultimately, Lake Tahoe. Existing conditions, which include river channel instability and reduced floodplain connectivity with the river, would persist. These conditions would result in continued elevated sediment loading in the Upper Truckee River. Relative to Alternatives 1, 2, 3, and 4, Alternative 5 would have the least potential to reduce sediment loading and would not contribute to attainment of the WQ-4 threshold.

WQ-5, Surface Water, Runoff Water Quality

The WQ-5 threshold, including TRPA standards focused on limiting nitrogen, phosphorous, iron, grease, oil, and suspended sediment in stormwater surface water discharges, is in non-attainment. Implementing Alternative 1, 2, 3, or 4 would require extensive grading and construction activities over an approximately four-year construction period. The construction activities would result in removal of vegetation and disturbance of surface soils and underlying floodplain sediments. This disturbance could potentially result in short-term increased erosion hazards in disturbed areas. Under all the action alternatives, construction would result in a temporary increase in the risk of releases of fuel, lubricants, and other hazardous substances related to the operation of heavy equipment. However, compliance with existing regulations regarding the control of stormwater discharges for construction activities would be required under all the action alternatives. Environmental Commitment 5 would be implemented to protect water quality during the construction period.

Proposed recreational facilities (including the kiosk, trails, viewpoints and observation areas, and fishing platforms) for all the action alternatives would be accessible by foot or bicycle. These facilities would not introduce significant new sources of stormwater contaminants. Runoff from impervious structures (i.e., pavement) would require collection and treatment (e.g., infiltration) to minimize discharge of stormwater.

Alternative 2 or 3 would include creation of stormwater treatment areas at the eastern margin of the study area. These treatment areas would be included to provide for the management/treatment of stormwater that enters the study area from developed areas to the east. This provision is a benefit of implementing Alternative 2 or 3, allowing treatment of stormwater generated from off-site sources.

Required compliance with existing regulations would mitigate potential increases in stormwater pollutants associated with implementing any of the action alternatives. Additionally, the action alternatives would provide increased opportunity for retention of fine sediment and associated nutrients on the Upper Truckee River floodplain in the study area (see discussion of the WQ-4 threshold, above). The combined effect of specific stormwater controls for proposed recreational facilities and the increased opportunity for treatment of Upper Truckee River flows would contribute to the attainment of the WQ-5 threshold under Alternative 1, 2, 3, or 4.

Relative to existing conditions, Alternative 5 would not result in any improvements for treatment of stormwater and would not contribute to attainment of the WQ-5 threshold.

WQ-6, GROUNDWATER

The Tahoe Basin is in non-attainment for the WQ-6 threshold, which includes standards focused on limiting nitrogen, phosphorous, iron, grease, oil, and turbidity in stormwater discharges to groundwater through infiltration. The goal of the WQ-6 threshold is to generally improve the potential for treatment of stormwater through groundwater infiltration and reduce nitrogen and phosphorous in groundwater. Data collected for the 2005 Total Maximum Daily Load Best Management Practices Evaluation and Feasibility Study indicate that in the Lake Tahoe Basin most untreated runoff samples would meet groundwater (or land treatment) standards. Implementing Alternative 1, 2, 3, or 4 would not introduce any significant sources of nitrogen or phosphorus into the study area or the Upper Truckee River. Implementation of any of the action alternatives would eliminate most existing impervious surfaces in the study area and would create a smaller amount of new impervious cover, resulting in a net decrease in the amount of impervious cover. The new impervious cover would be limited to paved trails and to kiosks and signs at observation points and view points (Alternative 1, 2, 3, or 4). The proposed extent of impervious cover would not substantially change (i.e., reduce) the recharge properties of the study area. All runoff collected from impervious surfaces would be treated in infiltration facilities before it reached groundwater.

All the action alternatives include modifications to the Upper Truckee River channel in the study area that would promote more frequent inundation of the floodplain/marsh surface during small and moderate flow events. The increased frequency and area of inundation during these smaller flood events would promote retention of sediment and associated nutrients (including nitrogen and phosphorous) on the floodplain, making nutrients available for uptake by riparian and marsh vegetation. Most of the sediment and nutrients would be transported by the river into and would not be generated at the study area. Although not directly quantifiable, the uptake of nutrients would reduce nutrient loading to Lake Tahoe (and therefore reduce the amount of nutrients delivered to groundwater through infiltration).

Implementing Alternative 1, 2, 3, or 4 would decrease the cover of impervious surfaces in the study area, treat stormwater runoff before it is discharged to groundwater, and increase opportunities for retention of nutrients on the Upper Truckee River floodplain. Therefore, implementing any of the action alternatives would generally benefit the goals of the WQ-6 threshold. Under Alternative 5, the existing conditions would continue therefore, the attainment of the WQ-6 threshold would not be affected.

4.6.3 SOIL CONSERVATION

Two soil conservation thresholds have been established by TRPA:

- SC-1, Impervious Coverage and
- SC-2, Stream Environment Zone, Naturally Functioning SEZ.

SC-1, IMPERVIOUS COVERAGE

This threshold is in non-attainment. It has two components, the first is based on controlling the amount of new impervious coverage, and the second involves a continuing effort to bring all land coverage into compliance with Bailey System coefficients. Implementing Alternative 1, 2, 3, or 4 would decrease coverage in the most sensitive lands (LCD 1b) adjacent to the Upper Truckee River and Trout Creek, therefore decreasing existing coverage of sensitive lands in the watershed. Coverage would be decreased by removing user-created trails in LCD 1b throughout the study area (Alternatives 1–4) and by removing fill from the TKPOA Corporation Yard and restoring it to natural vegetation (Alternatives 1–3). Alternatives 1–4 also involve constructing public access and recreation infrastructure; these elements would be new coverage in LCD 1b around the perimeter of the study area. Overall, implementing Alternative 1, 2, 3, or 4 would result in a net decrease in coverage in LCD 1b and in the study area as a whole. Consequently, implementing any of these alternatives would contribute to attainment of threshold SC-1 by decreasing land coverage. However, coverage allowed in the study area exceeds that allowed

by the Bailey System. Coverage removed would be banked and used for other projects (e.g., bike trails) as allowed by TRPA. Implementing Alternative 5 would maintain existing conditions and thus would not affect attainment of threshold SC-1.

SC-2, NATURALLY FUNCTIONING SEZ THRESHOLD

The SC-2 threshold is in non-attainment. It sets the goal of preserving naturally functioning Stream Environment Zone (SEZ) lands in their natural hydrologic condition, restoring all disturbed SEZ lands in undeveloped lands and restoring a five-percent increase in the area of naturally functioning SEZ lands (in the TRPA area of jurisdiction). Nearly all of the study area is designated as SEZ. The primary purpose of the Upper Truckee River and Marsh Restoration Project is to improve the natural function of the Upper Truckee River and floodplain in the study area. Implementing any of the action alternatives (Alternative 1, 2, 3, or 4) would restore river processes and functions of the Upper Truckee River and improve connectivity of the river with its floodplain. All the action alternatives involve preserving and improving natural hydrologic conditions in the study area, and only uses that are consistent with allowable uses in the SEZ lands are proposed for the alternatives, including Alternative 5. All the action alternatives are also consistent with the TRPA Environmental Improvement Program, which provides direction and funding for projects restoring degraded SEZ conditions.

Implementing any of the action alternatives (Alternative 1, 2, 3, or 4) would contribute to the attainment of the SC-2 threshold. Although implementing Alternative 5 would not degrade existing SEZ lands or propose inconsistent land uses, implementing this alternative would not contribute to attainment of the SC-2 threshold.

4.6.4 VEGETATION PRESERVATION

Four vegetation thresholds have been established by TRPA:

- V-1, Common Vegetation;
- V-2, Uncommon Plant Communities;
- V-3, Sensitive Plants; and
- V-4, Late Seral/Old Growth Ecosystems.

V-1, COMMON VEGETATION

The goal of the V-1 threshold is to increase plant and structural diversity of forest communities through appropriate management practices as measured by diversity indices of species richness, relative abundance, and pattern. The V-1 threshold includes separate standards for diversity and pattern of vegetation types and relative abundance for conifer forest types, meadow and wetland vegetation types, and deciduous riparian vegetation types that are applied basinwide:

- Provide for the perpetuation of yellow pine forest, red fir forest, subalpine forest, sagebrush scrub, and cushion plant associations and riparian, marsh, and meadow associations.
- Maintain at least four percent meadow and wetland vegetation and four percent deciduous riparian vegetation.
- Maintain no more than 25 percent dominant shrub vegetation.
- Maintain 15–25 percent of the yellow pine forest in seral stages other than mature.
- Maintain 15–25 percent of the red fir forest in seral stages other than mature.
- Limit the acreage size of new forest openings to no more than eight acres.
- Ensure that adjacent forest openings are not of the same relative age class or successional stage.

Regarding conifer forest, implementing any of the action alternatives (Alternative 1, 2, 3, or 4) would contribute to attainment of the V-1 threshold. Each of these alternatives involves enhancing forest communities in the study area by removing and restoring user-created trails.

Regarding deciduous riparian (i.e., willow-wet meadow scrub) and meadow and wetland vegetation (i.e., lagoon and montane meadow) in the study area, short-term construction-related effects would be avoided or substantially reduced by implementing measures incorporated into the project as environmental commitments (Table 2-6), implementing proposed mitigation, or meeting the terms and conditions of permits. Consequently, common vegetation would not be degraded. Furthermore, implementing any of the action alternatives (Alternative 1, 2, 3, or 4) would result in long-term increases in the acreage and quality of deciduous riparian vegetation and meadow and wetland vegetation in the study area. Because the relative abundance threshold for these vegetation types is presently in non-attainment, implementing any of the action alternatives would contribute to attainment of the V-1 threshold. Implementing Alternative 5 would not improve existing deciduous riparian, meadow, or wetland vegetation; rather, degradation would continue. Implementing this alternative would not contribute to attainment of the V-1 threshold.

V-2, UNCOMMON PLANT COMMUNITIES

The V-2 threshold calls for providing nondegradation of the natural qualities of any plant community that is uncommon to the Tahoe Basin or of exceptional scientific, ecological, or scenic quality. This threshold applies but is not limited to the deep-water plants of Lake Tahoe, Grass Lake (sphagnum fen), Osgood Swamp, the Freel Peak Cushion Plant Community, Hell Hole (sphagnum fen), Upper Truckee Marsh, Taylor Creek Marsh, and Pope Marsh. This threshold applies to the sensitive plant communities of the study area.

The threshold status for V-2 is in non-attainment. The adverse effects of construction activities would be only short-term and would be avoided or substantially reduced by implementing measures incorporated into the project, implementing proposed mitigation, or meeting the terms and conditions of permits. Consequently, uncommon plant communities would not be degraded. Furthermore, all the action alternatives include restoration and enhancement components that would bring the V-2 threshold closer to attainment. Each project alternative would increase the acreage of uncommon communities in the study area; enhance uncommon communities by reducing human disturbance, particularly in a core habitat area; and increase river-floodplain connectivity (e.g., the frequency of inundation by floodwaters), which would enhance uncommon communities. Implementing Alternative 5 would not improve existing uncommon plant communities; rather, degradation would continue. Thus, implementing this alternative would not contribute to attainment of the V-1 threshold.

V-3, SENSITIVE PLANTS

The goal of the V-3 threshold is to maintain a minimum number of population sites for five TRPA special-interest plant species: Galena Creek rockcress (*Arabis rigidissima* var. *demota*) (seven sites), long-petaled lewisia (*Lewisia longipetala*) (two sites), Cup Lake draba (*Draba asterophora* var. *macrocarpa*) (two sites), Tahoe draba (*Draba asterophora* var. *asterophora*) (five sites), and Tahoe yellow cress (*Rorippa subumbellata*) (26 sites). The threshold status for V-3 is attainment.

Of these plant species, only Tahoe yellow cress is found in the study area. Under any of the action alternatives, impacts on Tahoe yellow cress plants could include damage to plants during construction activities, loss of habitat from construction of project features, or subsequent damage to plants as a result of altered recreational activities. Although these potential adverse effects could occur under Alternative 2, this alternative also involves creating additional potential habitat for Tahoe yellow cress.

Under the action alternatives, potential impacts from construction activities would be avoided by implementing Mitigation Measure 3.4-3: Conduct Protocol-Level Preconstruction Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants. If all Tahoe yellow cress plants cannot be avoided, the Conservancy, in coordination

with the Tahoe Yellow Cress Adaptive Management Working Group, will delineate and fence a mitigation area, excavate and translocate potentially affected stems, plant additional nursery-grown Tahoe yellow cress plants, and monitor and adaptively manage the population. (No construction activities would occur under Alternative 5, the No-Project/No-Action Alternative.)

Unlike Alternatives 2, 3, 4, and 5, implementing Alternative 1 would result in the loss of habitat for Tahoe yellow cress (along the beach where the boardwalk would be constructed). Although implementing Alternative 1 would increase the acreage of beach and dune by restoring dunes at Cove East Beach (see Table 3.4-4), most of this restored vegetation would be dunes up to several hundred feet from the immediate shoreline and may not include the moist microsites that provide habitat for Tahoe yellow cress.

Under existing conditions, a comprehensive set of measures is being implemented and would continue to be implemented to maintain the Tahoe yellow cress populations in the study area. These measures also would be implemented under the action alternatives (Alternatives 1–4) and Alternative 5 (the No-Project/No-Action Alternative). The measures are components of a Conservancy-adopted management plan for Tahoe yellow cress in the study area (Conservancy and DGS 2007). For Alternatives 2, 3, 4, and 5, these measures would be sufficient to prevent recreational activities from having a significant effect on these Tahoe yellow cress populations. However, for Alternative 1, the management plan's measures would not prevent effects on the Barton Beach population site, where a boardwalk would be constructed close to the existing populations and an increase in visitors is expected. Despite signage, protective measures, and continued implementation of the Tahoe yellow cress management plan, trampling of plants and other disturbance to Tahoe yellow cress populations are expected to increase at this location.

For these reasons, implementing Alternative 2, 3, 4, or 5 (the No-Project/No-Action Alternative) would continue to maintain population sites for Tahoe yellow cress and thus would contribute to continued attainment of the V-3 threshold. Implementation of Alternative 1, however, would result in a significant impact on Tahoe yellow cress populations and habitat in the study area and therefore may not continue to maintain all population sites for Tahoe yellow cress in the study area. Therefore, implementing Alternative 1 would not contribute to continued attainment of the V-3 threshold and could result in nonattainment of this threshold.

V-4, LATE SERAL/OLD GROWTH ECOSYSTEMS

The goal of the V-4 threshold is to attain and maintain a minimum percentage of 55 percent by area of forested lands in the Tahoe Basin in a late seral or old-growth condition, distributed across elevation zones. Forested lands in TRPA-designated urban areas are excluded from the calculations for threshold attainment. The threshold status for the V-4 threshold is non-attainment.

The study area is in an urban area not included in attainment calculations and does not contain any late seral/old-growth forest. Implementing any of the five alternatives would not affect the attainment status of this threshold. Because of the long period over which late seral/old-growth ecosystems develop, project implementation under any of the alternatives also would not contribute to attainment of the V-4 threshold.

4.6.5 FISHERIES

Four fisheries thresholds have been established by TRPA:

- F-1, Lake Habitat;
- F-2, Stream Habitat;
- F-3, Instream Flows; and
- F-4, Lahontan Cutthroat Trout.

F-1, LAKE HABITAT

The goal of the F-1 threshold is to apply a nondegradation standard to fish habitat in Lake Tahoe and achieve the equivalent of 5,948 total acres of excellent (prime) habitat. According to TRPA (1982a), "[t]he quality of the lake can be evaluated and tested against the threshold using measures of habitat disturbance and substrate conditions." TRPA (1982a) also considered moderate to heavy boat traffic as disturbance that significantly contributed to the decline of lake fish habitat quality. The indicator for the F-1 threshold standard was later identified by TRPA as "[p]hysical disturbance of rocky substrate (acres)" and also considered the rearrangement or clearing of near shore substrate to accommodate beach use during low lake levels as disturbance to fish habitat and thus a degradation of fish habitat conditions (TRPA 1996). However, because of challenges associated with defining and measuring "disturbed rocky substrates" TRPA subsequently measured and reported on the extent and distribution of rocky substrates ("prime" fish habitat in the littoral zone) in their 2006 Threshold Evaluation. It was felt that this approach more directly addressed whether the management target of 5,958 acres was achieved (TRPA 2012).

The current status of this threshold is non-attainment, although based on remote sensing data collected and analyzed from 2002, the region has reached about 94% of the management target of 5,948 acres (TRPA 2012). Implementing Alternative 5 would not change fish habitat conditions in the lake; therefore, implementing this alternative would not affect attainment of the F-1 threshold. Implementing Alternative 1, 2, 3, or 4 would reduce suspended sediment loads to Lake Tahoe that originate from the study area. Therefore, implementing any of these alternatives could contribute to attainment of the F-1 threshold.

F-2, STREAM HABITAT

The goal of the F-2 threshold is to "maintain 75 miles of excellent, 105 miles of good, and 38 miles of marginal stream habitat," for streams classified as residential and migratory and as indicated by the map on page 76 of the EIS for the Establishment of Environmental Thresholds (TRPA 1982b). Past evaluations (1991 and 1996) of stream habitat quality used a list of subjective evaluation criteria. Each threshold stream (defined as those streams in the Lake Tahoe Region designated by TRPA as residential or migratory (TRPA 1982a; TRPA 2012, stream habitat map) was scored according to criteria used to conclude the relative condition of each stream. The resulting score for a particular length of stream was then fitted into one of three classes—excellent, good, or marginal—and the overall mileage of that stream segment was calculated. According to TRPA documents, it was unclear which fish species group the classification scheme was relevant to (e.g., suckers, trout, all). Consequently, because the criteria used in the classification scheme appeared biased toward salmonid life histories, an assumption was made that the classification scheme was most relevant to trout species. Based on the availability of data, past evaluations have used different criteria to draw conclusions on the conditions of different streams. For example, biological data were not available for the 1996 Threshold Evaluation; therefore, those criteria were dropped from the condition assessment of all threshold streams. In the 2001 Threshold Evaluation Report, because no field effort had been conducted since 1996, the professional opinions of Fisheries Technical Advisory Group members were used to report on the condition of stream habitat. Similarly, the 2006 Threshold Evaluation of stream habitat was hampered because of a lack of field effort to assess fisheries conditions (TRPA 2007).

The current status of this threshold is unknown because of lack of data (TRPA 2007, 2012). Implementing Alternative 5 would not change stream habitat conditions in the study area; therefore, implementing this alternative would not affect the attainment status of the F-2 threshold. Implementing Alternative 1, 2, 3, or 4 would improve stream habitat conditions in the Upper Truckee River to varying degrees and would contribute to the attainment of threshold F-2.

F-3, INSTREAM FLOWS

The F-3 threshold states that "until instream flow standards are established in the Regional Plan to protect fishery values, a nondegradation standard shall apply to instream flows." The original evaluation criterion for the instream flow threshold standard is found in TRPA (1982a), which states, "It can be evaluated for compliance by

monitoring the number of new diversions and changes in points of diversion." TRPA states that the indicator of instream flows is "evaluated by use of an in-stream beneficial use assessment, such as the type established by Title 23, Section 670.6 of the California Administrative Code" (TRPA 1996). An interim indicator and standard was adopted in the 2001 TRPA Threshold Evaluation because TRPA's staff has not had the technical ability or the staffing capacity to generate instream beneficial use assessments for each threshold stream. The interim indicator and standard is consistent with TRPA (1982b) to ensure that TRPA-reviewed and -permitted projects/activities do not jeopardize streamflows for fish. Thus, this evaluation quantifies the number of applications for diversions and lake transfers filed with TRPA as an indicator of maintenance of streamflow conditions in the region. Additionally, a summary of research completed by Desert Research Institute on streamflow condition is provided in this evaluation (Tracy and Rost 2003).

The current status of the threshold is attainment. Implementing any of the project alternatives, including Alternative 5, would not change instream flows in the Upper Truckee River. Therefore, it would not affect the attainment status of the F-3 threshold.

F-4, LAHONTAN CUTTHROAT TROUT

The goal of the F-4 threshold is to "support, in response to justifiable evidence, state and federal efforts to reintroduce Lahontan cutthroat trout." The current status of the threshold is attainment. Implementing Alternative 5 would not change habitat conditions for Lahontan cutthroat trout in the study area; therefore, implementing this alternative would not affect attainment of the F-4 threshold. Implementing Alternative 1, 2, 3, or 4 would improve stream habitat conditions in the Upper Truckee River to varying degrees for native fish species, including Lahontan cutthroat trout; therefore, it would contribute to further attainment of the F-4 threshold. All of the action alternatives support the 2012 TRPA recommendations to continue efforts to restore and enhance stream habitat conditions.

4.6.6 WILDLIFE

Two wildlife habitat thresholds have been established by TRPA:

- W-1, Wildlife Species of Special Interest, and
- W-2, Habitats of Special Significance.

W-1, WILDLIFE SPECIES OF SPECIAL INTEREST

The goal of the W-1 threshold is to provide a minimum number of population sites for six TRPA special-interest wildlife taxa: northern goshawk (12 sites), osprey (four sites), bald eagle (two winter sites and one nesting site), golden eagle (four sites), peregrine falcon (two sites), and waterfowl (18 sites). Mule deer is also a special-interest species; however, no number of sites has been specified for deer. Perching and nesting sites of special-interest bird species shall not be physically disturbed. TRPA maintains a nondegradation standard within buffer zones ("disturbance zones") around nest sites of these species. In areas outside existing urban areas, projects or land uses in the disturbance zones shall not, directly or indirectly, significantly affect the habitat or cause the displacement or extirpation of the population. Habitat in disturbance zones shall not be manipulated in any manner, except for habitat enhancement. The disturbance zone for northern goshawk and bald eagle is a 0.5-mile radius around each nest site; the disturbance zone for osprey, peregrine falcon, and golden eagle is a 0.25-mile radius around each nest site. TRPA has also mapped disturbance zones for wintering bald eagles. Disturbance zones for deer are meadows. This threshold is in non-attainment status for deer, waterfowl, and northern goshawk and bald eagle nesting and wintering sites, but it is near attainment for bald eagle wintering sites and goshawk. The threshold status is unknown for golden eagle and peregrine falcon. The nondegradation standard in wildlife disturbance zones does not apply to situations where these species select areas close to developed parcels.

A designated bald eagle winter site and a waterfowl site are located in the study area. Implementing any of the action alternatives would not degrade the bald eagle wintering site because construction activities would not occur during winter or otherwise affect perch sites, and winter recreational activities would remain at levels comparable to existing levels, which have not interfered with bald eagle use of the study area. (Under Alternative 5, the No-Project/No-Action Alternative, construction activities would not occur, and recreational activities would remain at a level comparable to existing conditions.) Implementing any of the action alternatives would not degrade conditions for waterfowl because short-term disturbances or loss of nesting waterfowl would be minimized by conducting preconstruction surveys and implementing avoidance measures. Recreation-related effects on waterfowl would remain comparable to or be reduced from existing conditions through habitat protection components and through decommissioning and restoration of user-created trails, and waterfowl habitat would be improved through ecosystem restoration of the river-floodplain system. Under Alternatives 1 and 2, additional lagoon habitat would also be created, which would benefit waterfowl. (Under Alternative 5, construction and ecosystem restoration would not occur, so recreational activities would remain comparable to existing conditions.) Therefore, implementing any of these alternatives would not affect the attainment status of the W-1 threshold, except with regard to waterfowl, for which conditions would be improved.

W-2, HABITATS OF SPECIAL SIGNIFICANCE

The goal of the W-2 threshold is to apply a nondegradation standard to habitats consisting of deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of riparian and wetland associations. These opportunities include but are not limited to preserving existing naturally functioning SEZ lands in their natural hydrologic condition; restoring all disturbed SEZ lands in undeveloped, unsubdivided lands; and restoring 25 percent of the SEZ lands that have been identified as disturbed, developed, or subdivided, to attain a five-percent total increase in the naturally functioning SEZ land. This threshold is in a non-attainment status. River and floodplain restoration under any of the action alternatives and lagoon restoration under Alternatives 1 and 2 would enhance the quality and increase the size of riparian, wetland, and aquatic habitat. Therefore, implementing any of these alternatives would contribute to attainment of the W-2 threshold. No habitat restoration would occur under Alternative 5, so implementing this alternative would not contribute to attainment of this threshold.

4.6.7 SCENIC

Four scenic thresholds have been established by TRPA:

- SR-1, Travel Route Ratings;
- SR-2, Scenic Quality Ratings;
- SR-3, Public Recreation Areas and Bike Trails; and
- SR-4, Community Design.

SR-1, Travel Route Ratings

The TRPA travel route rating threshold tracks long-term cumulative changes to views seen from federal and state highways in urban, transitional, and natural landscapes in the region and changes to views seen from Lake Tahoe, looking toward the shore (TRPA 1998). Roadways have been divided into 53 travel segments (called “roadway travel units”), each representing a continuous two-directional viewshed of similar visual character. Lake Tahoe’s shoreline is divided into 33 separate “shoreline travel units.” Roadway travel units are rated using the following six threshold criteria, and shoreline travel units are rated using criteria 1, 5, and 6:

1. Human-made features along roadways and shoreline
2. Physical distractions to driving along roadways
3. Roadway characteristics
4. Views of the lake from roadways

5. General landscape views from roadways and shoreline
6. Variety of scenery from roadways and shoreline

SR-1 is in non-attainment. However, for the City of South Lake Tahoe, SR-1 status is trending in the positive direction as a result of improvements in commercial and urban districts and shorezone units. Under Alternative 2, 3, 4, or 5, few project facilities would be visible from these travel units, and with the use of screening and natural colors and textures, the alternatives would meet the TRPA contrast rating and be consistent with moving towards attainment of the SR-1 threshold. However, construction of the proposed bridge under Alternative 1 would degrade views from Shoreline Travel Unit 33 and the lake. Although TRPA-approved colors and screening would be used to minimize the appearance of the bridge, these measures would not fully screen the views of this public access facility. Alternative 1 would not be consistent with the SR-1 threshold and would not assist with moving this threshold towards attainment status.

SR-2, Scenic Quality Ratings

The purpose of the TRPA scenic quality threshold is to maintain or enhance views of individual existing scenic resources. The scenic resources in the region include the views of the natural landscape and distinctive natural features that were identified, mapped, described, and evaluated as part of the 1982 Scenic Resource Evaluation. The subcomponents that make up the scenic resources are:

- foreground, middle-ground, and background views of the natural landscape from roadways;
- views to Lake Tahoe from roadways;
- views of Lake Tahoe and natural landscape from roadway entry points into the region;
- unique landscape features, such as streams, beaches, and rock formations that add interest and variety, as seen from roadways;
- views of the shoreline, the water's edge, and the foreground as seen from the lake;
- views of the backdrop landscape, including the skyline, as seen from the lake; and
- visual features seen from the lake that are points of particular visual interest on or near the shore.

Numerical scenic quality ratings are derived for each mapped scenic resource, using four visual indicators as subcomponents of the composite rating: unity, vividness, variety, and intactness. According to TRPA's *2001 Threshold Evaluation* (TRPA 2002), *unity* is the degree to which the visual resources of a scene join together to form a single, coherent, harmonious unit. *Vividness* is a measure of contrasting elements, such as color, line, and shape, marked differences seen as related, or repetition of similarities (sometimes referred to as distinctiveness). *Variety* is numerous or different parts seen together and can be referred to as richness. *Intactness* describes the degree to which a landscape retains its natural condition or the degree to which modifications emphasize or enhance the natural condition of the landscape.

These four indicators are each rated on a scale from zero (absent) to three (high). The ratings for all four indicators are summed to yield the scenic quality threshold rating. Each resource is defined by the length of the resource and the areas seen from that unit.

SR-2 is in non-attainment but is near attainment status. For the Tahoe Basin, SR-2 status is trending in the positive direction through improvements in commercial and urban distracts and shorezone units. No specific changes in the City of South Lake Tahoe were identified in the 2006 threshold evaluation report. Under Alternative 2, 3, 4, or 5, few project facilities would be visible from these travel units, and with the use of screening and natural colors and textures, the alternatives would meet the TRPA contrast rating and be consistent

with moving towards attainment of the SR-2 threshold. However, construction of the proposed bridge under Alternative 1 would degrade views from Shoreline Travel Unit 33 and the lake. Although TRPA-approved colors and screening would be used to minimize the appearance of the bridge, these measures would not fully screen the views of this public access facility. Alternative 1 would not be consistent with the SR-2 threshold and would not assist with moving this threshold towards attainment status.

SR-3, Public Recreation Area Scenic-Quality Threshold

The TRPA threshold for scenic quality of public recreation areas applies to specific public recreation areas, including beaches, campgrounds, ski areas, and segments of Class I and Class II bicycle trails. Public recreation areas with views of scenic resources are valuable because they are major public gathering places, hold high scenic values, and are places where people are static (compared to people on the travel routes) and have more time to focus their attention on the views and scenic resources.

Scenic resources as seen from the public recreation areas are composed of the following subcomponents:

- views of the lake and natural landscape from the recreation area;
- views of natural features in the recreation area; and
- views of human-made features in or adjacent to the recreation area that influence the viewing experience.

SR-3 is in non-attainment but is near attainment status. Threshold SR-3 does not apply to Alternatives 1–5 because no TRPA-designated public recreation areas have direct views of the study area.

SR-4, Community Design

The community design threshold is a policy statement that applies to the built environment and is not restricted to roadways or shoreline units. Design standards and guidelines found in the Code of Ordinances, the Scenic Quality Improvement Program, and the adopted community plans provide specific implementation direction. To secure threshold attainment, design standards and guidelines must be widely implemented to improve travel route ratings and produce built environments compatible with the natural, scenic, and recreational values of the region. The visual quality of the built environment has also become an issue of increasing importance to residents, local businesses, and community leaders. Because the early design and signage policies of the local governments and TRPA were inadequate, there was a critical need to develop greater sensitivity to site design and visual impacts to protect the lake's future as a premiere vacation area. The Goals and Policies contain a Community Design Subelement in the Land Use Element, which sets forth policies for new and existing development.

The community design threshold is implemented in two ways. First, the community plan and redevelopment plan process has been used to develop design standards and guidelines that are tailored to the needs and desires of individual communities. The standards are considered "substitute" standards because they replace all or portions of TRPA ordinances adopted to regulate the same subject. This process has been used extensively throughout the region to provide community-specific sign standards, but it has also addressed issues such as building height and architectural design guidelines. Second, the site planning and design principles contained in the ordinances and guidelines are implemented as part of individual development or redevelopment projects and are reviewed and approved by TRPA and local government.

All elements of Alternatives 2, 3, 4, and 5 would conform to all applicable design standards and guidelines and be consistent with the SR-4 threshold. Except for the proposed bridge over the Upper Truckee River, all elements of Alternative 1 also would conform to all applicable design standards and guidelines. The proposed bridge would degrade views from Shoreline Travel Unit 33 and the lake. Although TRPA-approved colors and screening would be used to minimize the appearance of the bridge, these measures would not fully screen the views of this public access facility. Alternative 4 would not be consistent with this threshold.

4.6.8 NOISE

Three noise thresholds have been established by TRPA:

- N-1, Aircraft Noise;
- N-2, Single Event Noise; and
- N-3, Community Noise Equivalent Levels.

The status of the N-1 threshold is "unknown." Thresholds N-2 and N-3 have a "non-attainment" status. Implementing the project would not adversely affect attainment of any of these thresholds. None of the alternatives would affect the attainment of threshold N-1 because none would involve altering aircraft operations. The attainment of threshold N-2 also would not be affected because none of the alternatives would involve creating or contributing to single-event noise sources as defined in the TRPA Environmental Threshold Carrying Capacity Noise Standards for Single Events (Table 3.11-2). Although implementing any of the action alternatives would affect short-term and long-term noise levels, none would affect attainment of threshold N-3. Implementing Alternative 1, 2, 3, or 4 would increase noise levels in the short term because construction equipment would be used to perform restoration activities and in the long term because visitor use would increase; however, construction noise would be exempt under the TRPA Code of Ordinances, and visitor noise would be insufficient to cause noise increases at nearby sensitive receptors and thus would not alter community noise equivalent levels as defined by TRPA (Table 3.11-3). Alternative 5 would be consistent with noise thresholds.

4.6.9 RECREATION

Two qualitative recreation thresholds have been established by TRPA:

- R-1, High Quality Recreational Experiences, and
- R-2, Fair Share of Resource Capacity.

R-1, High Quality Recreational Experiences

Threshold R-1 consists of two parts: (1) preservation and enhancement of a high-quality recreation experience and (2) the provision of additional high-quality, undeveloped lands for recreation, including lake access. The R-1 threshold is in attainment (TRPA 2007).

The attainment of this threshold standard is evaluated by considering the experience of recreation users and by considering public access to Lake Tahoe and to other natural features. TRPA's *2012 Threshold Evaluation* considers threshold R-1 to be in attainment based on the results of recreation surveys conducted by TRPA and recreation providers, improvements in the quality of recreation facilities, increases in the amount of shoreline accessible to the public, and increases in access to other lands and recreation opportunities, including additional bike paths that are accessible to the public in the basin. In 2001, the R-1 threshold was determined to be in non-attainment (TRPA 2007:10–8). However, based on an increase in publicly owned shoreline and additional bicycle and multi-use trails, the *2006 Threshold Evaluation* determined the R-1 threshold to be in attainment (TRPA 2007:10–4 to 10-8).

The temporary and short-term effects related to the construction of any of the action alternatives would not adversely affect the attainment status of the R-1 threshold. Construction activities would be managed to avoid long-term effects on high-quality undeveloped shorezone and other natural areas. Although construction activities would preclude access to portions of the study area during the short term, pedestrian access that bypasses areas of active construction would be maintained. Additional, dispersed recreation opportunities in the surrounding areas would accommodate recreation opportunities displaced from the study area. Because implementing any of the action alternatives would have only minor, short-term construction-related effects access to recreation resources, these effects would not be sufficient to affect the attainment status of the R-1 threshold.

The long-term operation of any of the action alternatives also would be consistent with the objectives of the R-1 threshold. Recreation-related amenities would serve to maintain the high quality of the recreational experience in the study area while also reducing the effects of recreation activities on sensitive natural resources and allowing the preservation of the more sensitive natural areas in the study area.

Under Alternative 5 (the No-Project/No-Action Alternative), no new facilities would be constructed and no existing facilities would be altered, expanded, or demolished. Public access to the study area would continue similar to existing conditions. Therefore, implementing Alternative 5 would be consistent with threshold R-1.

R2, Fair Share of Resource Capacity

The R-2 threshold is intended to ensure that a fair share of the region's outdoor recreation capacity is available to the general public. The *2006 Threshold Evaluation* considered three indicators for evaluation of the R-2 threshold: (1) cumulative accounts of persons-at-one-time (PAOT) allocations, when applicable; (2) facility development for recreation projects that do not require PAOT assignments; and (3) land acquisition of new public lands that support recreation purposes. Overall, based on an assessment of these three indicators, the R-2 threshold is considered to be in attainment (TRPA 2007:10–8).

The action alternatives would involve facility development for public access and recreation. Alternative 1 includes the most elements emphasizing public access and recreation, Alternative 2 the fewest, and Alternatives 3 and 4 intermediate amounts of these elements. Although these facilities would support similar dispersed recreational uses, they are moving toward developed recreation use (but not as developed as, for example, a campground or marina). Uses such as the fishing platform (Alternatives 2 and 3) and observation areas and viewpoints (Alternatives 1, 3, and 4) would require day-use PAOT allocations from the regional pool. Implementing Alternative 1, 2, 3, or 4 would support the attainment status of threshold R-2 and would not adversely affect this attainment status because only certain components of certain alternatives would require PAOT allocations and would be consistent with a fair share of the resource capacity. Under Alternative 1, 2, 3, or 4, the study area would be accessible to and provide recreation opportunities for the general public similar to existing conditions.

Under Alternative 5 (the No-Project/No-Action Alternative), no new facilities would be constructed and no existing facilities would be altered, expanded, or demolished. Public access to the study area would continue similar to existing conditions. Therefore, implementing Alternative 5 would not affect TRPA thresholds related to recreation.

5 COMPLIANCE, CONSULTATION, AND COORDINATION

This DEIR/DEIS/DEIS presents a thorough evaluation of the project alternatives, in accordance with CEQA, NEPA, and TRPA requirements. This chapter describes the proposed project's compliance with applicable federal statutes and executive orders and state statutes and regulations in addition to NEPA, CEQA, and TRPA environmental review provisions. Regulatory setting sections that discuss applicable federal, state, and local laws and regulations are also included in each of the resource sections (see Chapter 3, "Affected Environment and Environmental Consequences").

This chapter also describes the consultation and coordination undertaken to involve the public and agencies related to the development of the Upper Truckee River and Marsh Restoration Project and the EIR/EIS/EIS. These consultations assisted the Conservancy, Reclamation, and TRPA in determining the scope of this DEIR/DEIS/DEIS, developing program components and objectives, identifying the range of alternatives, defining potential environmental impacts and the significance of those impacts, and identifying appropriate mitigation measures. These efforts consist of public scoping meetings and ongoing meetings with agencies to obtain their input and comments. Conservancy and TRPA will continue to solicit public and agency input on the Upper Truckee River and Marsh Restoration Project by encouraging review of this DEIR/DEIS/DEIS. Past and future public involvement, consultation, and coordination efforts are discussed in Section 5.3, "Consultation and Coordination."

5.1 FEDERAL

5.1.1 FEDERAL ENDANGERED SPECIES ACT OF 1973, AS AMENDED (16 USC SECTION 1531 ET SEQ.)

The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are charged with oversight of species designated as threatened or endangered under the Federal Endangered Species Act (ESA) of 1973, as amended (16 U.S. Code (USC) 1531 et seq.). The act prohibits "take" of species listed as threatened or endangered. To "take" a species means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns also constitutes take. USFWS administers the ESA for terrestrial and freshwater species, and NMFS administers the ESA for marine and anadromous fish species.

Where a proposed project has a federal nexus, compliance with the ESA is through a process described by Section 7 of the ESA. Section 7(a)(2) of the ESA requires federal agencies to consult with USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species. Regulations jointly issued by USFWS and NMFS guide the consultation process.

When implementing Section 7(a)(2), a federal agency may make one of three possible determinations: no effect, not likely to adversely affect (NLAA), or may adversely affect (MAA). If the agency determines that implementing the proposed action would have no effect on listed species and provides a logical rationale for that determination, then ESA compliance for that action is complete. If the agency makes an NLAA determination, then it must seek concurrence with that determination from USFWS and/or NMFS. Projects that are wholly beneficial or have insignificant or unlikely adverse effects merit an NLAA determination. If the agency makes an MAA determination, then it must enter a formal consultation.

Under Section 7, the consultation process involves producing a biological assessment (BA) to describe the impact mechanisms and any adverse effects on the listed species. Based on the information contained in the BA, USFWS and/or NMFS may issue a biological opinion (BO), which states whether or not the federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. Nonjeopardy BOs include an incidental take statement, describing the amount of "take" that is allowed to

occur for otherwise lawful activities. BOs also identify "reasonable and prudent measures" that USFWS and NMFS believe are necessary and appropriate to minimize the effects of implementing a project, as well as terms and conditions to minimize incidental take or avoid take altogether.

As discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," EDAW (now AECOM), on behalf of the Conservancy, TRPA, and Reclamation, conducted surveys for terrestrial endangered and threatened species and determined that implementing the proposed project would not result in take of a species federally listed by USFWS as threatened or endangered. However, implementing the project is expected to result in take of a state-listed species, Tahoe yellow cress, that is also a candidate for federal listing by USFWS. Consequently, Mitigation Measure 3.4-3, "Conduct Protocol-Level Preconstruction Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants," would be implemented to avoid or fully mitigate disturbance of Tahoe yellow cress during construction. Although initial surveys have been conducted, additional preconstruction surveys for Tahoe yellow cress would be conducted to further assess potential take based on final design. The Conservancy and Reclamation would also coordinate with USFWS regarding the final design and preconstruction survey results and would determine the need for formal consultation.

As discussed in Section 3.5, "Fisheries," Cardno ENTRIX, on behalf of the Conservancy, TRPA, and Reclamation, conducted surveys for endangered and threatened aquatic species. Lahontan cutthroat trout (LCT) (*Oncorhynchus clarkii henshawi*), which is federally listed as threatened, was recently reported in the study area (Lemmers and Santora 2012). However, the two individual fish were determined to be from a group of hatchery fish that had been released by the Nevada Department of Wildlife (NDOW) into Lake Tahoe near Cave Rock during Summer 2011. It is uncertain whether a self-sustaining population will persist, but at present, the lake is considered an occupied water body, and appropriate ESA consultation procedures must be followed before any of the action alternatives could be implemented. Implementing any of the action alternatives (1–4) would result in potential take issues in the short term, as well as long-term benefits through improved habitat condition of the stream, lagoon(s), and floodplain of the study area. The Conservancy and Reclamation have coordinated with USFWS regarding potential project effects on federally listed and candidate species. Before the record of decision is issued, the Conservancy and Reclamation would complete informal and, if necessary, formal consultation with USFWS through Section 7 of the ESA. Thus, because the proposed project includes environmental commitments and mitigation measures that would avoid or fully mitigate effects on federally listed species, and because the Conservancy and Reclamation would complete the Section 7 consultation process, the proposed project would comply with the ESA.

5.1.2 MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, domestically implements a series of international treaties that provide protection for migratory birds. It authorizes the Secretary of the Interior to regulate the taking of migratory birds and provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird or any part, nest, or egg of any such bird (16 USC 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the MBTA includes several hundred species, which essentially includes all native birds.

Compliance with the MBTA is being addressed through compliance with the ESA and CEQA and through an additional measure. As discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," adverse impacts on special-status migratory birds would be avoided and effects on other migratory species reduced by conducting preconstruction surveys and establishing exclusion zones and/or limiting construction activities to the period outside the breeding season. In addition to these measures, to comply with the MBTA, a preconstruction survey for migratory bird nests would be conducted to locate and avoid or minimize the loss of active nests during construction. For construction activities during the nesting season (approximately April 1 to August 15) and within suitable nesting habitat, a preconstruction survey for active nest sites of migratory birds would be conducted within 30 days before construction. The survey would be limited to areas where the loss of active nests

could occur as a result of vegetation removal or other ground disturbance. If a migratory bird nest or likely nest site is located, a buffer around the nest would be avoided until the nest is no longer active.

5.1.3 FEDERAL WATER POLLUTION CONTROL ACT OF 1977 (33 USC 1251 ET SEQ.)

SECTION 404

The Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), provides for the restoration and maintenance of the physical, chemical, and biological integrity of the nation's waters. Section 404 of the act prohibits the discharge of fill material into waters of the United States, including wetlands, except as permitted under separate regulations by the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA). Section 404 requires projects to receive authorization from the Secretary of the Army, acting through 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 United States 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 for which fill material would be placed within or below the ordinary high-water mark of a stream. 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 usually requires the following items:

- a determination of the volume and types of material to be placed into waters of the United States;
- a determination of the total area of waters of the United States to be directly and indirectly affected;
- a wetland delineation in accordance with the 1987 Wetland Delineation Manual (Environmental Laboratory 1987) and the Western Mountain Regional Supplement (USACE 2008) when a project would impact wetlands;
- a description of habitats, including plant communities, located in the study area;
- a 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;
- any 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 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.

The Conservancy would coordinate with USACE as appropriate and obtain the appropriate permit for construction of all aspects of the project. All general terms required for permit compliance would be implemented. Because the project would identify the location of sensitive habitats, minimize impacts, and compensate for any losses through the permit process, it would comply with Section 404 of the CWA.

SECTION 401

Under CWA Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification for the discharge. The certification must be obtained from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over the affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401. In California, the authority to grant water quality certification has been delegated to the regional water quality control board (RWQCB) with local jurisdiction—in this case, the Lahontan RWQCB. Water quality certification requires evaluation of potential impacts in light of water quality standards and CWA Section 404 criteria governing discharge of dredged and fill materials into waters of the United States. Federal government delegates water pollution control authority under Section 401 to the states. Refer to Section 5.2.8, "Porter-Cologne Water Quality Control Act."

SECTION 402

Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit program to regulate discharges of pollutants into waters of the United States. A NPDES permit sets specific discharge limits for point sources discharging pollutants into waters of the United States and establishes monitoring and reporting requirements, as well as special conditions. The Federal government delegates water pollution control authority under Section 402 to the states, so the states oversee compliance. Refer to Section 5.2.8, "Porter-Cologne Water Quality Control Act."

5.1.4 SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) (42 USC 300f et seq.) was established to protect the quality of drinking water in the United States. This law focuses on all waters actually or potentially designated for drinking use, whether from aboveground or underground sources. The SDWA authorized EPA to establish water quality standards and required all owners or operators of public water systems to comply with primary (health-related) standards. State governments, which assume this power from EPA, also encourage attainment of secondary (nuisance-related) standards. Contaminants of concern in a domestic water supply are those that either pose a health threat or in some way alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA using primary and secondary maximum contaminant levels (MCLs). As directed by the SDWA amendments of 1986, EPA has been expanding its list of primary MCLs. MCLs have been proposed or established for approximately 100 contaminants. Furthermore, water used for domestic purposes is required to be treated by the local or regional water supplier in accordance with federal and state standards, and the proposed project would not change existing license requirements, impede enforcement of standards, or otherwise affect drinking water quality. Therefore, the project would be in compliance with any applicable drinking water standards. Federal government delegates water pollution control authority under the SDWA to the states, so the states oversee compliance. Refer to Section 5.2.8, "Porter-Cologne Water Quality Control Act."

5.1.5 FLOODPLAIN REGULATIONS

The Upper Truckee River and Trout Creek through the marsh are regulated as part of the National Flood Insurance Program (NFIP) of the Federal Emergency Management Agency (FEMA). Areas of special flood hazards are identified by FEMA, which issues Flood Insurance Rate Maps showing the regulatory floodplain. Under the NFIP, FEMA mandates that development cannot occur in the regulatory floodplain (typically the 100-year floodplain) if that development would result in a material (more than one foot) increase in the flood elevation. In addition, no development is allowed in delineated floodways in regulatory floodplains.

In the study area, the CSLT implements federal floodplain regulations through Chapter 34 of the City Code and the zoning ordinance. The project's proposed changes to the Upper Truckee River must meet FEMA and CSLT requirements for floodplain management, and a revised Flood Insurance Rate Map would need to be developed and submitted to the CSLT and FEMA for approval. A design directive that is more stringent than federal policy was used to design the proposed project. It states that implementing the proposed project would result in "no net increase" in the base flood elevation for a 100-year event (Conservancy and DGS 2005:3-2). As discussed in Section 3.8, "Hydrology and Flooding," implementing the project would result in less-than-significant or beneficial effects on flood flows and flood hazards related to the existing floodplain, and the project would be in compliance with applicable floodplain regulations.

5.1.6 FEDERAL CLEAN AIR ACT

EPA has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

The CAA required EPA to establish national ambient air quality standards (NAAQS). EPA has established primary and secondary NAAQS for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter, fine particulate matter, and lead. The primary standards protect the public health, and the secondary standards protect public welfare. The CAA was enacted to protect and enhance the nation's air quality to promote public health and welfare and the productive capacity of the nation's population. It requires an evaluation of any federal action to determine its potential impact on air quality in the project region. California has a corresponding law that also must be considered during the EIR/EIS/EIS process. (Refer to Section 5.2.1, "California Clean Air Act.") Proponents of specific projects must demonstrate that their actions will conform to the CAA and the State Implementation Plan (SIP). A federal action conforms with an applicable SIP if (1) the total of direct and indirect emissions from the action are compliant and consistent with the requirements of the SIP and (2) one of a list of enumerated, pollutant-specific requirements is satisfied (such as accounting for the Federal action's projected emission of any criteria pollutant in the SIP or offsetting ozone or nitrogen dioxide emissions in the nonattainment area) (42 Code of Federal Regulations (CFR) 93.158(a)).

Section 3.2, "Air Quality and Climate Change," provides an evaluation of the potential impacts on air quality and Environmental Commitments to reduce those impacts. As described in Section 3.2, with the implementation of EC 6, "Obtain and Comply with Federal, State, Regional, and Local Permits" (Table 2-7), emissions from the proposed project would be within the budgets established by the SIP for all criteria air pollutants (Alternatives 1 - 5). Because Alternatives 1 - 5 were found to comply with the SIP and the project would not contribute substantially to a violation of the NAAQS, the proposed project would comply with the CAA.

5.1.7 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED (PUBLIC LAW 89-665, 80 STAT. 915, 16 USC SECTION 470 ET SEQ. AND 36 CFR 18, 60, 61, 63, 68, 79, 800)

The National Historic Preservation Act requires agencies to take into account the effects of their actions on properties listed in or eligible for listing in the National Register of Historical Places (NRHP). The Advisory Council on Historic Preservation has developed an implementing regulation (36 CFR 800) that allows agencies to develop agreements for consideration of these historic properties. Section 106 review includes the scoping, identification, assessment, and consultation called for in its implementing regulation (36 CFR 800) to determine impacts on properties listed in or eligible for listing in the NRHP. Consultation under Section 106 takes place during preparation of an EIS to determine whether historic resources would be adversely affected and, if so, whether measures could be implemented to reduce adverse effects to a less-than-significant level. Section 106 does not address impacts on all types of cultural resources or all cultural aspects of the environment; it deals only with impacts on properties listed in or eligible for listing in the NRHP.

Section 106 requires federal agencies to consider the effects of their actions, including those they fund or permit, on properties that may be eligible for listing or are listed in the NRHP. To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (archaeological, historic, and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead Federal agency, a qualified representative of the lead agency can conduct the necessary steps. The Section 106 review process involves a four-step procedure:

- Establish the undertaking, develop a plan for public involvement, and identify other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).
- Resolve adverse effects by consulting with the State Historic Preservation Officer (SHPO) and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

In accordance with Section 106 requirements, the Washoe Tribe of Nevada and California was contacted regarding the proposed project, and surveys were conducted to identify cultural resources and evaluate their eligibility for inclusion in the NRHP.

Studies of the area of potential effect and consultation with the Washoe Tribe and the California SHPO determined that prehistoric and historic-era sites have been documented in the study area that could be affected by the proposed alternatives. The prehistoric resources, particularly CA-ELD-26, represent the intensive use of the lakeshore and the adjacent Upper Truckee River Marsh by the Washoe for fishing, the acquisition of numerous other lake and marsh resources, and general habitation. Although no subsurface investigations were conducted at CA-ELD-26, surface indications and detailed ethnographic and historic-era accounts of Washoe occupation at this location suggest that the site may retain important scientific information. Consequently, CA-ELD-26 appears to be eligible for listing in the NRHP. No other sites appear to be eligible. A representative of the Washoe Tribe (Daryl Cruz) has been involved in reviewing previous study findings, the results of archival and field research, and environmental commitments designed to reduce potential impacts on cultural resources to less-than-significant levels. Construction of some of the proposed recreational facilities, access/haul roads, and staging areas has the potential to affect portions of site CA-ELD-26 and/or artifacts and features possibly associated with this site that have not yet been documented on the landform (bluff) located above the marsh. As described in EC 2, the Conservancy would prepare and implement a cultural resources protection plan. As part of the plan, construction barriers would be installed around site CA-ELD-26, construction workers would be educated about site protection requirements, and a qualified cultural resource specialist would oversee initial grading activities in the vicinity of the bluff (Table 2-7). Furthermore, as part of the final design the bike path will completely avoid the bluff area and ELD-26/H. These measures have been proposed to address all potential adverse effects on the eligible resource.

In addition, Reclamation has initiated the Section 106 process for the proposed project and will complete consultation with the SHPO before the record of decision is issued. For these reasons, the project would comply with Section 106 of the National Historic Preservation Act.

5.1.8 INDIAN TRUST ASSETS

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for Native American tribes or individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust. Examples of trust assets include lands, minerals, hunting and fishing rights, and water rights over which it has been determined

that tribes have a historical legal claim. The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Native American tribes or individuals by treaties, statutes, and executive orders. This duty, founded in law and restated in departmental policy, requires Reclamation to carry out its activities in a manner that avoids adverse impacts on ITAs when possible. When adverse impacts cannot be avoided, appropriate mitigation or compensation will be provided. However, there are no such lands in or in the immediate vicinity of the study area. For this reason, it was determined that the proposed project would have no impact on ITAs.

5.1.9 FARMLAND PROTECTION POLICY ACT

The Farmland Protection Policy Act of 1981 requires federal agencies to include in an EIS an assessment of effects on Prime and Unique Farmland, as defined by the Natural Resources Conservation Service, and if this assessment identifies potential effects on the conservation of farmland, to consider alternatives with lesser effects. The study area is located on State property that is not designated as Prime or Unique Farmland or Farmland of Statewide Importance, and none of the land is under Williamson Act contract. For this reason, implementing the project would not result in loss of farmland acreage. Because no impacts on farmland have been identified, the proposed project would comply with the Farmland Protection Policy Act.

5.1.10 EXECUTIVE ORDER 11988 (FLOODPLAIN MANAGEMENT)

Executive Order 11988 requires federal agencies to avoid, to the extent possible, adverse impacts associated with the occupancy and modification of floodplains and to avoid development in floodplains whenever there is a practical alternative. If a project alternative is found to be in the applicable regulatory floodplain, the agency is required to prepare a floodplain assessment, known as a statement of findings. The executive order also directs federal agencies to restore and preserve the natural and beneficial values served by the floodplains (EPA 2010). Implementing the proposed project would restore portions of the Upper Truckee River floodplain and would not involve new development in a designated floodplain. In addition, implementing the proposed project would provide on-site storm drainage facilities and an accompanying stormwater drainage plan to prevent damage from increased stormwater runoff volumes. Therefore, the project would comply with Executive Order 11988.

5.1.11 EXECUTIVE ORDER 11990 (PROTECTION OF WETLANDS)

Executive Order 11990 established the protection of wetlands and riparian systems as the official policy of the federal government. It requires all Federal agencies to consider wetland protection as an important part of their policies and take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. As discussed above in Section 5.1.3, “Federal Water Pollution Control Act of 1977 (33 USC 1251 et seq.),” a wetland delineation would be prepared for the proposed project after a preferred alternative is selected, and a Section 404 permit would be obtained before construction begins. Because the location of sensitive habitats would be identified by a wetland delineation for the construction of all aspects of the project, Section 404 permit requirements would be complied with, and any losses would be compensated for, all impacts on wetlands would be avoided, minimized, or mitigated. In addition, implementing any of the action alternatives would result in a net increase in the amount of wetlands in the study area. Therefore, the proposed project would comply with Executive Order 11990.

5.1.12 EXECUTIVE ORDER 12898 (ENVIRONMENTAL JUSTICE)

Executive Order 12898 requires that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their actions on minority and disadvantaged populations or communities. As discussed in Section 3.15, “Socioeconomics, Population and Housing, and Environmental Justice,” the project would have no disproportionately high and adverse effects on minority or disadvantaged populations. For this reason, the project would comply with Executive Order 12898.

5.1.13 EXECUTIVE ORDER 13007 (INDIAN SACRED SITES)

Executive Order 13007 requires federal agencies with land management responsibilities to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners. It also requires that these agencies avoid adversely affecting the physical integrity of such sacred sites. Among other things, Federal agencies must provide reasonable notice of proposed actions or land management policies that may restrict future access to or ceremonial use of, or may adversely affect the physical integrity of, sacred sites. As described in Section 3.3, "Archaeological and Historical Resources," cultural resource investigations for the project consisted of a phased approach that included Native American consultation, prefield research, field reconnaissance surveys, and resource documentation. Based on the investigations, it was determined that no Indian sacred sites are located in the study area or its vicinity. Therefore, the proposed project would have no effect on any Indian sacred sites. Because there would be no impacts, the project would comply with Executive Order 13007.

5.1.14 EXECUTIVE ORDER 13112 (NATIONAL INVASIVE SPECIES MANAGEMENT PLAN)

Executive Order 13112 directs all federal agencies to prevent the introduction and control the spread of invasive, nonnative species in a cost-effective and environmentally sound manner to minimize economic, ecological, and human health impacts. It established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of State, local, and private entities. The Invasive Species Council and advisory committee oversee and facilitate implementation of the executive order. Because the invasive plant management practices included in EC 4, "Prepare and Implement Invasive Species Management Plan." would be implemented, the proposed project would comply with this executive order.

5.1.15 HAZARDOUS MATERIALS MANAGEMENT

EPA is the agency primarily responsible for enforcing and implementing federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained mainly in Titles 29, 40, and 49 of the CFR.

The proposed project involves implementing EC 9, "Develop and Implement a Construction Management Program," including a health and safety plan; providing qualified oversight of fill removal in the TKPOA Corporation Yard as part of Mitigation Measure 3.7-2a (Alts. 1–3); notifying the appropriate federal, state, and local agencies if contaminated soils are identified (Mitigation Measure 3.7-2b [Alts. 1–3]); and notifying the school district with jurisdiction within one-quarter mile of the study area regarding potential substances subject to California Health and Safety Code Section 25532 (EC 9). Furthermore, the Conservancy would continue to comply with all existing regulations related to hazardous materials management. Therefore, the proposed project would comply with regulations related to hazardous materials.

5.1.16 TRANSPORT OF HAZARDOUS MATERIALS

The U.S. Department of Transportation regulates hazardous materials transport between states and is responsible for protecting the public from dangers associated with transporting these materials. This responsibility is in part addressed through the training of persons responsible for regulatory compliance, enforcement, and response to accidents and incidents involving hazardous materials. The proposed project involves implementing EC 9, "Develop and Implement a Construction Management Program," including a health and safety plan; providing qualified oversight of fill removal in the TKPOA Corporation Yard as part of Mitigation Measure 3.7-2a (Alts. 1–3); notifying the appropriate federal, state, and local agencies if contaminated soils are identified (Mitigation Measure 3.7-2b (Alts. 1–3); and notifying the school district with jurisdiction within one-quarter mile of the study area regarding potential substances subject to California Health and Safety Code Section 25532 (EC 9). Furthermore, the Conservancy would continue to comply with all existing regulations related to hazardous

materials management. Therefore, the proposed project would comply with regulations related to hazardous materials.

5.1.17 WORKER SAFETY

As described in the Occupational Safety and Health Act of 1970 (29 USC 651 et seq.), the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor is responsible at the federal level for ensuring worker safety in the handling and use of chemicals. OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. The proposed project involves implementing EC 9, "Develop and Implement a Construction Management Program," including a health and safety plan; providing qualified oversight of fill removal in the TKPOA Corporation Yard as part of Mitigation Measure 3.7-2a (Alts. 1–3); notifying the appropriate federal, state, and local agencies if contaminated soils are identified (Mitigation Measure 3.7-2b [Alts. 1–3]); and notifying the school district with jurisdiction within one-quarter mile of the study area regarding potential substances subject to California Health and Safety Code Section 25532 (EC 9). Furthermore, the Conservancy would continue to comply with all existing regulations related to hazardous materials management. Therefore, the proposed project would comply with regulations related to hazardous materials.

5.1.18 WILDLIFE HAZARDS TO AIRSPACE SAFETY

Collisions between aircraft and wildlife compromise the safety of passengers and flight crews. Damage to an aircraft resulting from a wildlife collision can range from a small dent in the wing to catastrophic engine failure and destruction of the aircraft, along with potential loss of life.

The Federal Aviation Administration (FAA) is responsible for enforcing 14 CFR 139, which prescribes rules regarding the operation of airports used by aircraft with seating capacity of more than 30 passengers. FAA roles and responsibilities relating to wildlife hazards and their associated human health and safety concerns are addressed in 14 CFR 139.337, Wildlife Hazard Management. An ecological study must be prepared by the certificate holder and submitted to FAA when multiple birds or other wildlife are struck by aircraft or ingested into aircraft engines or if the number of birds or other wildlife in an airport flight pattern is sufficient to result in such hazards. FAA then determines whether a wildlife hazard management plan is needed. FAA's Office of Airport Safety and Standards has published advisory circulars and program policy and guidance directives that further clarify this information. An advisory circular dated August 28, 2007, and titled "Hazardous Wildlife Attractants on or Near Airports" (Advisory Circular 150/5200-33B) provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or to the vicinity of public-use airports. FAA recommends the following separations when siting wildlife attractants (e.g., waste disposal operations, wastewater treatment facilities, and wetlands) (FAA 2007):

- 5,000 feet from airports serving piston-powered aircraft,
- 10,000 feet from airports serving turbine-powered aircraft, and
- 5 miles from airports where the wildlife attractant may cause hazardous wildlife movement into or across the approach or departure airspace.
- Implementing the proposed project would enhance or restore habitat for birds categorized as hazardous wildlife in terms of the potential for aircraft collisions. The restored habitat in the study area would be located approximately one mile or more from the airport, which would be outside of the approach/departure zone of the Lake Tahoe Airport but within the 10,000-foot-wide zone where FAA recommends that wildlife attractants be minimized. Restoration activities would improve the quality of existing habitat but would not increase the amount of habitat considered an attractant to wildlife and would not appreciably increase the

amount of wildlife using the area. Bird-attracting habitats are already present in these locations, and enhancement and restoration activities are not anticipated to substantially increase the attraction of hazardous wildlife.

- In addition, Stream Environment Zone restoration, timber management, range management, and management of fish and wildlife habitat are identified in the *Lake Tahoe Airport Comprehensive Land Use Plan* (CLUP) as compatible land uses for the clear, approach/departure, and overflight zones of the Lake Tahoe Airport (CSLT 2007:38). Thus, a wide range of management, enhancement, and restoration activities in nearby natural vegetation are considered compatible with the airport's operations.

- Furthermore, bird strikes have not historically affected aviation safety at the Lake Tahoe Airport. There are no records of bird-related air strikes in the FAA Birdstrike Database, and no airport staff members recall any bird-related air strikes (CDM 2007). With or without project implementation, the likelihood of wildlife-aircraft accidents associated with the Lake Tahoe Airport is considered low. Because an increase in wildlife-related hazards is not expected and the proposed land uses are compatible with the CLUP, the proposed project complies with 14 CFR 139 and 14 CFR 139.337.

5.1.19 EARTHQUAKE HAZARDS REDUCTION ACT OF 1977

The U.S. Congress passed the Earthquake Hazards Reduction Act in 1977 to "reduce the risks to life and property from future earthquakes in the United States" through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this reduction, the act established the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the descriptions of agency responsibilities, program goals, and objectives. The mission of the National Earthquake Hazards Reduction Program is to "develop, disseminate, and promote knowledge, tools, and practices for earthquake risk reduction—through coordinated, multidisciplinary, interagency partnerships among the NEHRP agencies and their stakeholders—that improve the Nation's earthquake resilience in public safety, economic strength, and national security." The NEHRPA designated FEMA as the program's lead agency and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies are the National Institute of Standards and Technology, the National Science Foundation, and the U.S. Geological Survey. The proposed project will comply with NEHRPA through EC 8: Prepare a Final Geotechnical Engineering Report, and Implement All Applicable Recommendations.

5.2 STATE

5.2.1 CALIFORNIA CLEAN AIR ACT

The California Air Resources Board (ARB) is responsible for coordinating and providing oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required ARB to establish California ambient air quality standards (CAAQS). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, lead, visibility-reducing particulate matter, and criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

Because implementing and of the action alternatives (Alternative 1- 4) would not contribute substantially to a violation of the CAAQS through EC 1: Reduce the Generation of Construction-Related Emissions of ROG, NO_X, and PM_{10}, the proposed project would comply with the CCAA.

5.2.2 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) was written to protect plant and animal species. Species are listed as endangered or threatened when their continued existence in California is in jeopardy. CESA and Sections 2050 and 2097 of the California Fish and Game Code prohibit activities that would result in "take" of State-listed and candidate species without prior authorization from the California Department of Fish and Game (CDFG). Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species. Unlike under the federal ESA, the CESA definition of "take" does not include "harming" or "harassing"; therefore, habitat modification is not necessarily considered take under CESA.

CDFG authorization for take can be obtained through an incidental take permit under Section 2081(b) of the California Fish and Game Code. A 2081(b) permit will authorize take that is incidental to an otherwise lawful activity as long as the impacts of the authorized take are minimized and fully mitigated. Measures to minimize and fully mitigate impacts must (1) be roughly proportional in extent to the impact of the taking on the species, (2) maintain the applicant's objectives to the greatest extent possible, (3) be implementable, and (4) be adequately funded to allow implementation and monitoring of compliance.

As discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," and Section 3.5, "Fisheries," potential effects on species that are state listed as endangered or threatened have been evaluated. Without mitigation, construction activities of the proposed project could potentially affect willow flycatcher (state listed as endangered), which has a moderate potential to nest in the study area, and Tahoe yellow cress (also state listed as endangered), which grows in the study area. This DEIR/DEIS/DEIS identifies two mitigation measures that are designed to avoid or fully mitigate the take of these State-listed plant and animal species: Mitigation Measure 3.4-8A (Alt. 1–4), "Conduct Preconstruction Surveys for Nesting Special-Status Birds (Yellow Warbler, Willow Flycatcher, Waterfowl, and Long-Eared Owl), and Implement Buffers If Necessary," and Mitigation Measure 3.4-3 (Alt. 1–4), "Conduct Protocol-Level Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants." In addition to implementing these two mitigation measures, the Conservancy is coordinating with CDFG and, if necessary, would consult with CDFG to obtain a Section 2081(b) permit. Because effects on listed species would be avoided or fully mitigated and a 2081(b) permit would be obtained before construction begins, the proposed project would comply with CESA.

5.2.3 CALIFORNIA FISH AND GAME CODE SECTION 1602—STREAMBED ALTERATIONS

Section 1602 of the California Fish and Game Code requires that a streambed alteration agreement be granted before any action is conducted that may divert or obstruct natural channel flow; substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFG; or use any material from the streambed of a CDFG-designated waterway. Implementing the proposed project would require a streambed alteration agreement from CDFG for work on the bed and banks of the Upper Truckee River and Trout Creek. The Conservancy would obtain the streambed alteration agreement from CDFG and implement all terms required for permit compliance. Therefore, the project would be in compliance with California Fish and Game Code Section 1602.

5.2.4 CALIFORNIA FISH AND GAME CODE SECTIONS 3503–3503.5—PROTECTION OF BIRD NESTS AND RAPTORS

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs. Typical violations of these codes include destroying active nests by removing the vegetation in which the nests are located. Disturbance of nesting pairs by nearby project construction that results in the failure of active raptor nests could also violate Section 3503.5. As discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," without mitigation,

the project's construction activities could affect nesting birds. This DEIR/DEIS/DEIS identifies mitigation measures designed to avoid potential impacts on the nests of special-status bird species and waterfowl, and these measures would also avoid or reduce effects on other nesting birds. In addition, as described above for the MBTA, a preconstruction survey for migratory bird nests would be conducted to locate and avoid or minimize the loss of active nests during construction. Through these measures, the project would comply with California Fish and Game Code Sections 3503–3503.5.

5.2.5 CALIFORNIA NATIVE PLANT PROTECTION ACT

In addition to CESA, the California Native Plant Protection Act (CNPPA) provides protection to endangered and rare plant species, subspecies, and varieties of wild native plants in California. The CNPPA preceded CESA, and its definitions of "endangered" and "rare" closely parallel the CESA definitions of endangered and threatened plant species. With the passage of CESA in 1984, plant species determined to be endangered under the CNPPA were converted to endangered status under CESA. However, as discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," implementation of the project would not involve potential take of plants listed as rare under the CNPPA.

5.2.6 CALIFORNIA STATE LANDS COMMISSION

The California State Lands Commission (CSLC) was given authority and responsibility to manage and protect the important natural and cultural resources on certain public lands in the state and the public's rights to access these lands. The public lands under the CSLC's jurisdiction are of two distinct types: sovereign lands and school lands. Sovereign lands, which encompass approximately four million acres, include the beds of California's naturally navigable rivers, lakes (including Lake Tahoe), streams, and the underlying beds, as well as the state's tidal and submerged lands along the coastline, extending from the shoreline to three miles offshore. These lands are owned by the State and held in trust for the benefit of all people. The rights protected include navigation, commerce, and fisheries uses, as well as the right to fish, hunt, bathe, swim, boat, and engage in general recreation. The trust also encompasses the right to preserve lands in their natural state for ecological study, as open space, and as bird and marine habitat. These public rights are inalienable and cannot be extinguished, except to further public trust purposes generally. In making these choices, the government has the power to make equitable adjustments among conflicting trust uses.

A project cannot use these state lands unless an easement is first obtained from CSLC. The public-trust easement in navigable waterways allows lateral access between the high-water line and the low-water line; at Lake Tahoe, this is the area between the adjudicated ordinary low-water mark, at elevation 6,223 feet Lake Tahoe Datum, and the ordinary high-water mark, at elevation 6,228.75 feet Lake Tahoe Datum.

Because the bed of Lake Tahoe in the study area is within CSLC jurisdiction, use of the bed of Lake Tahoe would require an easement from the CSLC. The Conservancy has been coordinating with CSLC as a responsible agency under CEQA during preparation of this DEIR/DEIS/DEIS.

5.2.7 CALIFORNIA SCENIC HIGHWAY PROGRAM

California's Scenic Highway Program, created by the California State Legislature in 1963, is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve scenic highway corridors and protect them from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic," depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view. Official designation requires a local jurisdiction to enact a scenic corridor protection program that protects and enhances scenic resources (Caltrans 2008). As discussed in Section 3.14, "Scenic Resources," portions of U.S. 50 and SR 89 visible from the study area are officially designated as scenic highways; however, the proposed project would have no significant effects on views from U.S. 50 and SR 89. Because the project would not have a

significant adverse effect on these designated scenic highways, it would comply with the California Scenic Highway Program.

5.2.8 PORTER-COLOGNE WATER QUALITY CONTROL ACT

The State Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) requires the State of California to establish water quality objectives and standards to protect water quality for beneficial uses. The State Water Resources Control Board (SWRCB) is composed of nine RWQCBs that are responsible for preserving California's water quality. The RWQCBs issue waste discharge permits, take enforcement action against violators, and monitor water quality. SWRCB and the RWQCBs jointly administer most of the CWA regulations in coordination with EPA and USACE. Under the act, the appropriate RWQCB must prepare and periodically update a water quality control plan.

The proposed project is under the jurisdiction of the Lahontan RWQCB. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan), adopted on March 31, 1995, and as amended, identifies the beneficial uses, water quality objectives, numerical standards, and waste discharge prohibitions for surface water and groundwater on the California side of the Lake Tahoe Basin (Lahontan RWQCB 1995:1-1). The Basin Plan incorporates water quality thresholds, programs, and regulations as developed and implemented by TRPA, along with state and federal regulations. It states specific water quality objectives for certain water bodies in the Lake Tahoe Hydrologic Unit. The objectives pertaining to water bodies in the study area are summarized in Table 3.9-2 of Section 3.9, "Geomorphology and Water Quality." To achieve those objectives, the Basin Plan identifies prohibitions against discharges and threatened discharges in 100-year floodplains or below the high-water rim of Lake Tahoe that apply to portions of the TRPA-defined shorezone. The Lahontan RWQCB has granted an "exemption to a waste discharge prohibition contained in the Water Quality Plan for the Lahontan Region" to specifically allow for potential turbidity elevation during the construction of stream restoration projects in the Lake Tahoe Basin. If necessary, the Conservancy would apply for this exemption.

The Lahontan RWQCB regulates discharge of stormwater from construction sites (as well as stormwater from municipal and industrial sites) under the CWA Section 402 NPDES program. Because implementing the proposed project would disturb more than one acre, the Lahontan RWQCB NPDES General Permit Number CAG616002, which addresses discharge of stormwater from construction sites, would be required. The Conservancy and its contractors would obtain and comply with this permit. The general types of measures that would be implemented are discussed as part of the project description, and the Conservancy would implement EC 5, "Prepare and Implement Effective Construction Site Management Plans to Minimize Risk of Water Quality Degradation and Impacts to Vegetation," and EC 6, "Obtain and Comply with Federal, State, Regional, and Local Permits," to protect water quality..

5.2.9 HAZARDOUS MATERIALS MANAGEMENT

The California Department of Toxic Substances Control, a division of the California Environmental Protection Agency (Cal/EPA), has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement laws and regulations regarding hazardous materials. The Conservancy would comply with applicable Cal/EPA regulations through developing and implementing a Construction Management Program and complying with permit and regulatory requirements as described in EC 6, "Obtain and Comply with Federal, State, Regional, and Local Permits," and EC 9, "Develop and Implement a Construction Management Program," and also described in Section 5.1.15, "Hazardous Materials Management."

5.2.10 WORKER SAFETY

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in the state. Cal/OSHA standards are more stringent than federal OSHA regulations and are presented in Title 8 of the California Code of Regulations. Cal/OSHA conducts

on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices. The Conservancy would comply with applicable Cal/OSHA regulations through developing and implementing a Construction Management Program and complying with permit and regulatory requirements as described in as described in EC 6 and EC 9, and also described in Section 5.1.15, "Hazardous Materials Management."

5.2.11 LAND USE AND AIRSPACE SAFETY

The State regulates airports under the authority of the Airport Land Use Commission Law, Section 21670 et seq. of the California Public Utilities Code. The *California Airport Land Use Planning Handbook*, published by the Caltrans Division of Aeronautics (Caltrans 2011), supports this law by providing compatibility planning guidance to airport land use commissions (ALUCs), counties and cities that have jurisdiction over airport area land uses, and airport proprietors.

The Airport Land Use Commission Law is implemented through ALUCs, which are required in every county with a public-use airport or with an airport served by a scheduled airline. Under the provisions of the law, the ALUC has certain responsibilities conferred upon it and specific duties to perform. Among these duties are preparing airport land-use plans for each of the airports in its jurisdiction (California Public Utilities Code Sections 21674[c] and 21675[a]). TRPA has been designated as the ALUC by El Dorado County. The CSLT Planning Commission, when augmented with two additional commission members, has been designated as the ALUC for the CSLT. The action alternatives (1–4) and Alternative 5 (No-Project/No-Action Alternative) are consistent with the compatible land uses identified in the CLUP for the clear, approach/departure, and overflight zones of the Lake Tahoe Airport (CSLT 2007:38).

5.2.12 WILDFIRE HAZARD MANAGEMENT

The California Department of Forestry and Fire Protection (CAL FIRE) implements statewide laws aimed at reducing wildfire hazards in wildland-urban interface areas. The laws are based on fire hazard assessment and zoning. The laws apply to State Responsibility Areas (SRAs). SRAs are defined as areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the State Board of Forestry, pursuant to California Public Resources Code Sections 4125 and 4102, to be primarily the responsibility of the State. Fire protection outside SRAs is the responsibility of federal or local jurisdictions. These areas are referred to by CAL FIRE as Local Responsibility Areas.

The study area is not within an SRA; however, fuel reduction activities initiated by the Conservancy on all Conservancy-owned lands, including the study area, are completed by Conservancy staff members according to CAL FIRE recommendations for reducing wildfire hazards. The Conservancy has a registered professional forester who flags vegetation for removal by Conservancy forestry crews or local fire districts contracted by the Conservancy. In addition to fuel removal, Conservancy forestry crews assist with prescribed fire projects and burning after hand piling. Fuel reduction in portions of the study area not under the management jurisdiction of the Conservancy is the responsibility of local entities. These management practices would continue under any of the action alternatives (1–4) and under Alternative 5 (No-Project/No-Action Alternative). The Conservancy would also prepare and implement a fire prevention and management plan in coordination with the appropriate local fire suppression agencies before the start of construction activities, as described in EC 9. Therefore, the Conservancy's management of the study area would remain consistent with statewide laws aimed at reducing wildfire hazards in wildland-urban interface areas.

5.3 CONSULTATION AND COORDINATION

Consultation and coordination for the Upper Truckee River and Marsh Restoration Project involved public and agency scoping and consultation with agencies and organizations, as described in the following sections. Future consultation and coordination are also described.

5.3.1 SCOPING

Scoping is an initial and critically important component of the environmental review process. It is intended to assist in identifying the final range of actions, alternatives, environmental resources, environmental issues, and mitigation measures that will be analyzed in an environmental document. The scoping process is used to help ensure that potential environmental problems are identified early and are properly studied.

Scoping is conducted as part of compliance with NEPA, CEQA, and TRPA ordinances. It can be conducted in various forms and may involve numerous participants, but it generally involves the solicitation of input from the public and interested agencies to determine the scope, focus, and contents of an environmental document.

NEPA REQUIREMENTS

NEPA requires a formal scoping process during preparation of an EIS. Under NEPA, scoping is the process by which a lead agency for EIS preparation solicits input on the nature and extent of issues and impacts to be addressed in the EIS and the methods by which they will be evaluated. NEPA specifically requires that the lead agency consult with federal agencies with jurisdiction by law over the proposed action and/or alternatives or agencies with special expertise regarding the action and to solicit information from the public during EIS preparation.

Section 1501.7 of the Council on Environmental Quality's NEPA regulations requires the lead agency's scoping process to:

- invite affected federal, state, and local agencies, Indian tribes, project proponents, and other interested persons to participate in the EIS process;
- determine the potential significant environmental issues to be analyzed in depth in the EIS;
- identify and eliminate issues determined to be insignificant or addressed in other documents;
- allocate assignments among the lead agency and any cooperating agencies regarding preparation of the EIS, including impact analysis and identification of mitigation measures;
- identify related environmental documents being prepared;
- identify other environmental review and consultation requirements; and
- indicate when the environmental document will be prepared and the lead agency's tentative planning and decision-making schedule.

Scoping should occur as early as possible after the lead agency decides to prepare an EIS. The NEPA lead agency is required to publish a notice of intent (NOI) in the *Federal Register* that announces its intent to prepare an EIS. Although not specifically required by NEPA, the lead agency may also hold scoping meetings. Scoping must occur after the NOI is issued but may occur earlier, as long as appropriate public notice is provided and enough project information is available to allow the public and relevant agencies to participate effectively.

Reclamation published the NOI for the proposed project in the *Federal Register* on October 19, 2006. The NOI provides a summary of the proposed project and project background; describes the proposed alternatives; presents information on the scoping meetings; and identifies Conservancy, Reclamation, and TRPA contacts. Information about how to obtain copies of the NOI was made available to scoping meeting attendees, and an electronic version of the document was posted on the project Web site (see below). The NOI is included in Appendix A.

CEQA REQUIREMENTS

Scoping is a less formalized process under CEQA than under NEPA but is encouraged in the statute and State CEQA Guidelines. Scoping is recognized as a means to help identify the range of actions, alternatives, environmental effects, methods of assessment, and mitigation measures to be analyzed in depth in an EIR, and it is used to eliminate from detailed study those issues that would not be affected by the project. Scoping is also an effective way to bring together and resolve the concerns of interested Federal, State, and local agencies; the proponent of the action; and other interested persons, including project opponents.

Tools used to determine the scope of an EIR include early public and interagency consultation, the notice of preparation (NOP) of an EIR, and scoping meetings with agencies and the public. Of these tools, only the NOP is a mandatory requirement under CEQA for the preparation of an EIR. Issuance of the NOP, similar to the issuance of the NOI under NEPA, serves as the trigger for soliciting comments on the proposed project. Scoping typically ends at the conclusion of a specified public comment period, which is 30 days for the CEQA process, although public involvement continues throughout the project review and approval effort. The NOP for the project is discussed below.

Under Section 21083.9 of the statute, a scoping meeting is required if a project qualifies as being of statewide, regional, or areawide significance. The Upper Truckee River and Marsh Restoration Project qualifies for this requirement. Notice of the scoping meeting is required to include specified recipients, including responsible agencies, trustee agencies, and members of the public who have requested notification. The scoping meetings held for the proposed project complied with these CEQA requirements.

The NOP provides notice of the scoping meetings, presents an overview of the proposed project and alternatives, presents a statement of the purpose of and need for and objectives of the project, summarizes the proposed alternatives, lists the issues anticipated to be addressed in this DEIR/DEIS/DEIS, and provides contact information. The Conservancy and TRPA filed the NOP for the proposed project with the California and Nevada State Clearinghouses and released it publicly on October 4, 2006. The NOP identified November 2, 2006, as the closing date for submitting scoping comments. In addition to State Clearinghouse distribution to potentially interested state agencies in both California and Nevada, copies of the NOP were mailed to property owners (within 300 feet of the study area boundaries) and other parties known to have an interest in the proposed project.

After concern was expressed that the circulation of the NOP in October did not meet all the requirements of CEQA, the NOP was filed with the California and Nevada State Clearinghouses again on March 16, 2007. Accompanying the NOP was a public notice announcing the extension of the comment period for the project to April 30, 2007. In addition to being filed with the State Clearinghouses, this notice and the NOP were also mailed to homeowners within a 700-foot radius of the study area, as well as to other parties known to have an interest in the project. This second mailing pertained only to the scoping period pursuant to CEQA and did not affect the scoping period for the project conducted by Reclamation for compliance with NEPA or by TRPA pursuant to its Code of Ordinances and Rules of Procedure. The NOP is included in Appendix A.

TRPA REQUIREMENTS

TRPA is required to consult with and obtain the comments of any federal, state, and local agency that has jurisdiction by law or special expertise with respect to environmental impacts associated with the project. Although TRPA rules and ordinances do not require the release of an NOP or mandate conducting formal public scoping meetings, TRPA typically releases an NOP early in the environmental review process and holds scoping meetings before the Advisory Planning Commission (APC) and Governing Board (GB) to provide opportunity for APC and GB members, agencies, and members of the public to provide input on the project. TRPA requirements were met with release of the NOI and NOP, discussed above.

5.3.2 AGENCIES AND ORGANIZATIONS CONSULTED

This section discusses agency consultation and coordination that occurred during the development of this DEIR/DEIS/DEIS and summarizes the agency involvement activities undertaken by Reclamation, the Conservancy, and TRPA to satisfy NEPA, CEQA, and TRPA requirements.

NEPA CONSULTATION

Reclamation invited eligible governmental entities to participate as cooperating agencies, in accordance with 40 CFR Part 46.225(3)(b), in developing the Upper Truckee River and Marsh Restoration Project EIR/EIS/EIS. Two agencies requested identification as cooperating agencies under NEPA: USACE and EPA. Reclamation responded to their requests for cooperating agency status in accordance with 43 CFR Part 46 and the U.S. Department of the Interior's Final Rule for implementation of NEPA. Other interested Federal agencies included USFWS, the U.S. Forest Service, and the U.S. Department of Transportation.

CEQA AND TRPA CONSULTATION

The Conservancy and TRPA contacted responsible agencies, as required under CEQA and TRPA regulations. Comments from responsible agencies were received from the Lahontan RWQCB and CDFG (a responsible and trustee agency). Other interested agencies that provided comments were CSLC, ARB, Caltrans, the SHPO, the Washoe Tribe of Nevada and California, the South Tahoe Public Utilities District, and the Tahoe Resource Conservation District.

5.3.3 PUBLIC OUTREACH EFFORTS FOR THE UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

Several outreach efforts have been undertaken to inform stakeholders about the Upper Truckee River and Marsh Restoration Project, including public meetings during early study phases and development of the project alternatives, as well as the scoping process.

SCOPING MEETINGS

As described above, scoping meetings are required for the environmental review process. Two public scoping meetings were held, in the afternoon and evening of October 24, 2006, to provide opportunities for interested parties to learn about the proposed project and alternatives and to provide input regarding the alternatives and scope of the environmental document. The project was also presented as an information item to TRPA's APC and GB during October 11 and October 25, 2006 meetings. The public, in addition to APC and GB members, was asked to provide input on the project at these two meetings.

During the October 24, 2006, public scoping meetings, comment cards[1] were made available to participants, and maps describing the alternatives were displayed and discussed. Each meeting included a presentation that described the project background and objectives, the proposed alternatives, the environmental review process and tentative schedule, the project website, and public participation opportunities. Meeting locations, dates, and times were as follows:

[1] Comment cards were used to submit written comments at the meetings. They were also preaddressed for submittal via U.S. mail.

Place	Address	Date	Time
North Tahoe Conference Center, TRPA Advisory Planning Commission meeting	8318 North Tahoe Boulevard, Kings Beach, CA 96143	Wednesday, October 11, 2006	Beginning at 9:30 a.m.
Inn by the Lake, public scoping meeting	3300 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150	Tuesday, October 24, 2006	12 p.m. to 2 p.m.
Inn by the Lake, public scoping meeting	3300 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150	Tuesday, October 24, 2006	6 p.m. to 8 p.m.
TRPA, Governing Board meeting	128 Market Street, Stateline, NV 89449	Wednesday, October 25, 2006	Beginning at 9:30 a.m.

A copy of the presentation from the October 24, 2006, scoping meetings is included in Appendix B.

SCOPING COMMENTS

Written comments were received, and comments were presented orally, at the scoping meetings. Comments were received from several state agencies, local agencies, organizations, and numerous members of the public. A scoping summary report (Conservancy, Reclamation, and TRPA 2007) was prepared for the proposed project. The report summarizes the results of the scoping process and is available in Appendix B. The comments received assisted Reclamation, the Conservancy, and TRPA in identifying the final range of actions, alternatives, and environmental issues that are analyzed in this DEIR/DEIS/DEIS.

OTHER MEETINGS

Although it was not a formal scoping meeting, the Conservancy, at the request of neighbors living in the Cove East/Al Tahoe area, held a meeting on the evening of April 24, 2007, to discuss the project with concerned citizens. Approximately 25 interested persons, most of them residents of the Cove East/Al Tahoe area, attended the discussion. During the meeting, attendees were given a short overview of the project, which was followed by a question-and-answer period. Because this meeting was not a formal scoping meeting, verbal comments expressed during the meeting were not recorded as scoping comments. Attendees to the meeting were aware that this was the case and were provided with information regarding the timeline for submitting comments and means by which they could submit comments for the record. Maps describing the alternatives were on display during the meeting.

UPPER TRUCKEE UPDATE

The Conservancy has distributed three issues of a newsletter about the project called *The Upper Truckee Update*. The project newsletters have included information about the project's history and background, project objectives, and proposed alternatives and presented an overview of the alternatives development process. The newsletter also described the environmental review process, solicited public input, and noticed the two public scoping meetings that were held in the afternoon and evening of October 24, 2006.

The first and second editions of the newsletter were mailed to property owners near the study area, agencies, organizations, and the general public in October 2002 and October 2006. The second edition was also made available at the public scoping meetings, the Conservancy office's front desk, and Upper Truckee Marsh public access points. The third edition has been made available at the Conservancy's front desk and Upper Truckee Marsh public access points. All newsletters were available on the project web site (see below) and are included in Appendix B.

NEWSPAPER

The Conservancy placed a newspaper display advertisement in the *Tahoe Daily Tribune*, the primary newspaper in the area of the restoration project, on October 20, 2006. The advertisement announced the lead agencies' intention to prepare an EIR/EIS/EIS, the places and times of the scoping meetings and the TRPA General Board meeting, Conservancy and TRPA contact information, and the availability of information on the Upper Truckee River and Marsh Restoration Project website.

WEB SITE

Until 2009, the Conservancy maintained a project website for the Upper Truckee River and Marsh Restoration Project (http://www.uppertruckeemarsh.com) that presented the project history and background, information about the study area, project objectives, alternatives descriptions, project schedule, and contact information. It also included an electronic form for submitting comments on the NOP and an electronic form for requesting being added to the project's mailing list. Scoping meeting information was posted on the website on October 4, 2006, the day on which the NOP was first published.

Since 2009, information regarding the Upper Truckee River and Marsh Restoration Project, and other Conservancy projects, has been available at the Conservancy's website (http://tahoe.ca.gov/upper-truckee-marsh-67.aspx).

5.3.4 ISSUES AND MAJOR AREAS OF CONTROVERSY IDENTIFIED DURING PUBLIC OUTREACH

During the scoping process and meetings with agencies and organizations, the public and federal, state, and local stakeholders identified the following areas of concern. Each area of concern listed below is described more fully in the *Scoping Summary Report for the Upper Truckee River and Marsh Restoration Project* (Conservancy, Reclamation, and TRPA 2007). The scoping summary report also includes a complete copy of the comments received, which is attached as Appendix B of this DEIR/DEIS/DEIS.

The State CEQA Guidelines require that the EIR identify the major areas of known concern or controversy. The following list identifies these major areas of concern or controversy:

- **CEQA/NEPA Process**
  - Providing adequate public noticing and opportunities to review and comment on the proposed project
  - Evaluation and ranking of alternatives, giving priority to low-impact components
- **Dogs/Pets**
  - Protecting sensitive areas from dogs
  - Designating specific areas for dogs/pets
- **Hydrology, Geomorphology, and Water Quality**
  - Increasing flood hazards on adjacent properties
  - Stabilizing the area in and around the U.S. 50 bridge
  - Quantifying the construction-related water quality impacts
  - Identifying sediment and nutrient loads resulting from implementing the action alternatives, compared to implementing the No-Project/No-Action Alternative

- **Noise**
  - Increasing noise resulting from increased recreational activity
- **Recreation and Public Access**
  - Increasing noise, trash, and illegal activity (vandalism and theft), resulting from increased public access
  - Increasing public access effects on the restoration process
  - Linking proposed trails with existing trails to improve access on both sides of the river
  - Posting signs to identify appropriate and inappropriate uses of the trail system and to protect sensitive environmental resources
- **Traffic, Circulation, and Parking**
  - Exacerbating existing neighborhood parking problems
  - Exacerbating existing traffic and roadway hazards by increasing the number of visitors
- **Hazards**
  - Increasing the fire hazard by increasing the extent of flammable vegetation
  - Increasing the presence of mosquitoes and the need for mosquito abatement
- **Cumulative Projects**
  - The proposed project as it relates to other restoration projects in the Upper Truckee River watershed
- **Other**
  - Retaining/restoring the Cove East trail
  - Water quality effects of the project on the Sailing Lagoon
  - Removal or restoration of the Tahoe Keys Corporation Yard

5.3.5 FUTURE PUBLIC INVOLVEMENT

In accordance with NEPA, CEQA, and TRPA requirements, this DEIR/DEIS/DEIS will be circulated for public and agency review and comment for a 60-day period following the date when EPA publishes the weekly notice of this DEIR/DEIS/DEIS in the *Federal Register* and the notice of completion is filed with the State Clearinghouse. Public hearings will be held during the review period to receive oral comments on the content and adequacy of this DEIR/DEIS/DEIS. In addition, written comments will be accepted during the review period. Hearings will be held at the following locations:

March 13, 2013
TRPA Advisory Planning Commission Meeting
Lower Kingsbury Grade
128 Market Street
Stateline, NV 89449

March 27, 2012
TRPA Governing Board Meeting
Lower Kingsbury Grade
128 Market Street
Stateline, NV 89449

Public information meeting will be held at the following locations:

February 27, 2013
Inn by the Lake
3300 Lake Tahoe Blvd
South Lake Tahoe, CA, 96150
1:30 – 4:00 PM and 6:00 – 8:30 PM

March 28, 2013
Lake Tahoe Community College Board Room
1 College Drive
South Lake Tahoe, CA, 96150
6:00 – 8:30 PM

Following lead agency consideration of all comments received during the public review period of this DEIR/DEIS/DEIS and circulation of the final EIR/EIS/EIS, the Conservancy, Reclamation, and TRPA will hold a public meeting to consider certification of the final EIR/EIS/EIS and decide whether to approve one of the alternatives. A record of decision under NEPA and a notice of determination under CEQA documenting the decision will then be issued. To support a decision on the proposed project, the Conservancy and TRPA must prepare and adopt written findings of fact for each environmental impact identified in this DEIR/DEIS/DEIS that would remain significant after mitigation; a statement of overriding considerations, if needed; and a mitigation monitoring and reporting program for implementing the mitigation measures and project revisions, if any, identified in this DEIR/DEIS/DEIS.

DISTRIBUTION LIST

The public distribution of this DEIR/DEIS/DEIS emphasizes the use of electronic media to ensure cost-effective, broad availability to the public and interested parties. This DEIR/DEIS/DEIS is available on the Internet at the Conservancy's website at http://tahoe.ca.gov/index.aspx. This DEIR/DEIS/DEIS is also available for review at the locations listed below.

All persons, agencies, and organizations listed in Appendix L have been informed of the availability of and locations to obtain this DEIR/DEIS/DEIS, as well as the timing of the 60-day public/agency comment period. These parties have received a hard copy of the full DEIR/DEIS/DEIS and an electronic copy of the appendices, a hard copy of the executive summary and an electronic copy of this DEIR/DEIS/DEIS and appendices, or a notification of availability of this DEIR/DEIS/DEIS.

Copies of this DEIR/DEIS/DEIS are available for public review at the following locations:

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

Tahoe Regional Planning Agency
128 Market Street
Stateline, NV 89449

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

South Lake Tahoe Library front desk
1000 Rufus Allen Blvd.
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7 REFERENCES CITED

7.1 CHAPTER 1, "INTRODUCTION AND STATEMENT OF PURPOSE AND NEED"

California Water Boards and Nevada Division of Environmental Protection. 2007 (September). *Lake Tahoe TMDL Pollutant Reduction Opportunity Report*. Volume 1.01. Sacramento, CA, and Carson City, NV.

California Water Boards and NDEP. *See* California Water Boards and Nevada Division of Environmental Protection.

Coats, R. N., and C. R. Goldman. 2001. Patterns of Nitrogen Transport in Streams of the Tahoe Basin, California–Nevada. *Water Resources Research* 37(2):405–415.

Goldman, C. R. 1988. Primary Productivity, Nutrients, and Transparency during the Early Onset of Eutrophication in Ultra-oligotrophic Lake Tahoe, California-Nevada. *Limnology and Oceanography* 33(6, part 1):1321–1333.

Kondolf, G. M., R. Kattelman, M. Embury, and D. C. Erman. 1996. Status of Riparian Habitat. Pages 1009–1030 in *Sierra Nevada Ecosystem Project: Final Report to Congress, Vol. II, Assessments and Scientific Basis for Management Options.* Davis: University of California, Centers for Water and Wildland Resources.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. South Lake Tahoe, CA.

Lahontan Regional Water Quality Control Board and University of California, Davis. 2007 (February). *Watershed Hydrologic Modeling and Sediment and Nutrient Loading Estimation for the Lake Tahoe Total Maximum Daily Load*. Prepared by Tetra Tech.

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

Lahontan RWQCB and UCD. *See* Lahontan Regional Water Quality Control Board and University of California, Davis.

Manley, P. N., and M. D. Schlesinger. 2001 (April). *Riparian Biological Diversity in the Lake Tahoe Basin*. Final report for the California Tahoe Conservancy and the U.S. Forest Service. South Lake Tahoe, CA.

Murphy, D. D., and C. M. Knopp (eds.). 2000. *Lake Tahoe Watershed Assessment*. General Technical Report PSW-GTR-175. Albany, CA: Pacific Southwest Research Station, U.S. Forest Service.

Reuter, J. R., and W. W. Miller. 2000. Aquatic Resources, Water Quality and Limnology of Lake Tahoe and Its Upland Watershed. Cited in Murphy and Knopp 2000.

Rowe, T. G., D. K. Saleh, S. A. Watkins, and C. R. Kratzer. 2002. *Streamflow and Water-Quality Data for Selected Watersheds in the Lake Tahoe Basin, California and Nevada, through September 1998.* U.S. Geological Survey Water Resources Investigations Report 02-4030. Carson City, NV.

Simon, A. 2006 (June 28). *Estimates of Fine-Sediment Loadings to Lake Tahoe from Channel and Watershed Sources*. USDA-ARS National Sedimentation Laboratory Technical Report No. 52. Prepared for the University of California, Davis; the Nevada Division of Environmental Protection; and the Lahontan Regional Water Quality Control Board.

Simon, A., E. Langendoen, R. Bingner, R. Wells, A. Heins, N. Jokay, and L. Jaramillo. 2003. *Lake Tahoe Basin Framework Implementation Study: Sediment Loadings and Channel Erosion*. Prepared for the U.S. Army Corps of Engineers. Prepared by the USDA Agricultural Research Service, National Sedimentation Laboratory. Washington, DC.

U.S. Geological Survey. 1997. *Hydrogeology of Lake Tahoe Basin, California and Nevada, and Results of a Ground-Water Quality Monitoring Network, Water Years 1990–92*. Water-Resources Investigations Report 97-4072. Washington, DC.

USGS. *See* U.S. Geological Survey.

7.2 CHAPTER 2, "PROJECT ALTERNATIVES"

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2003b. *Upper Truckee River and Wetland Restoration Project Processes and Functions of the Upper Truckee Marsh*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2006. *Upper Truckee River and Wetland Restoration Project Final Concept Plan Report*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2007a (November 20). *Upper Truckee River and Marsh Restoration Project Schematic Design Plans & Details*. South Lake Tahoe and West Sacramento, CA. Prepared by ENTRIX, Sacramento, CA, and EDAW (now AECOM), South Lake Tahoe, CA.

———. 2007b. *Tahoe Yellow Cress Management Plan Upper Truckee River and Marsh Restoration Project*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW (now AECOM), South Lake Tahoe, CA.

———. 2008. *Upper Truckee River and Marsh Restoration Project Monitoring Plan*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW (now AECOM), South Lake Tahoe, CA; ENTRIX, Sacramento, CA; and Valley & Mountain Consultants, South Lake Tahoe, CA.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services, Real Estate Services Division.

Tahoe Regional Planning Agency and California Tahoe Conservancy. 2006 (October). *Notice of Preparation of a Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS)/EIS for the Upper Truckee River and Marsh Restoration Project, South Lake Tahoe, California.* Stateline, NV, and South Lake Tahoe, CA.

TRPA and Conservancy. *See* Tahoe Regional Planning Agency and California Tahoe Conservancy.

7.3 SECTION 3.1, "APPROACH TO THE ENVIRONMENTAL ANALYSIS"

No references cited.

7.4 SECTION 3.2, "AIR QUALITY"

ARB. *See* California Air Resources Board.

Cahill, T., and S. Cliff. 2000. *Air Quality Modeling and Its Role in Ecosystem Management at Lake Tahoe.* Davis, CA.

———. 2008a. State and National Ambient Air Quality Standards. Available: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed June 2008.

———. 2008b. Proposed State Strategy for California's State Implementation Plan. Available: <http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>. Accessed August 2008.

———. 2008c. *The California Almanac of Emissions and Air Quality, 2007 Edition.* Sacramento, CA.

———. 2008d. Air Quality Data Statistics. Available: <www.arb.ca.gov/adam/welcome.html>. Accessed June 2008.

———. 2008e. Area Designation Maps/State and National. Available: <http://www.arb.ca.gov/desig/adm/adm.htm>. Accessed June 2008.

———. 2008f. Emissions Inventory for Lake Tahoe Basin, El Dorado County Portion. Available: <http://www.arb.ca.gov/ei/ei.htm>. Accessed June 2008.

———. 2008g. Community Health Air Pollution Information System. Available: <http://www.arb.ca.gov/gismo2/chapis_v01_6_1_04/>. Accessed June 2008.

———. 2008h. Facility Search Engine. Available: <http://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php>. Accessed June 2008.

Churchill, R., and R. Hill. 2000. *A General Location Guide to Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos.* Sacramento: California Department of Conservation, Division of Mines and Geology.

EDCAQMD. *See* El Dorado County Air Quality Management District.

El Dorado County Air Quality Management District. 2002. *Guidance to Air Quality Assessment.* Placerville, CA.

EPA. *See* U.S. Environmental Protection Agency.

Garza, V., P. Graney, and D. Sperling. 1997 (December). *Transportation Project-Level Carbon Monoxide Protocol*. Research Report UCD-ITS-RR-97-21. Revisions by D. Niemeier, D. Eisinger, T. Kear, and D. Chang. Prepared for Environmental Program, California Department of Transportation. Institute of Transportation Studies, University of California, Davis. Davis, CA.

Godish, T. 2004. *Air Quality*. Chelsea, MI: Lewis Publishers.

Sacramento Air Quality Management District. 2009 (December). *Guide to Air Quality Assessment in Sacramento County.* Sacramento, CA.

Salinas, Julio. Staff toxicologist. Office of Environmental Health Hazard Assessment, Sacramento, CA. August 3, 2004—telephone conversation with Kurt Legleiter of EDAW (now AECOM) regarding exposure period for determining health risk.

Tahoe Regional Planning Agency. 1982. *Study Report for the Establishment of Environmental Threshold Carrying Capacities.* Stateline, NV.

———. 1987. *Regional Plan for the Lake Tahoe Basin*. Goals and Policies. Stateline, NV.

———. 2007a. TRPA 2006 Thresholds Evaluation Report. Available: <http://www.trpa.org/default.aspx?tabid=174>. Accessed June 2008.

———. 2007b (September 26). Governing Board Meeting Notes. Stateline, NV.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Environmental Protection Agency. 2012 (July). California 8-hour Ozone Nonattainment Areas (2008 Standard). Available: <http://www.epa.gov/air/oaqps/greenbk/ca8_2008.html>. Accessed November 2012.

———. 2008a. Carbon Monoxide Information. Available: <http://www.epa.gov/airquality/carbonmonoxide/>. Accessed June 2008.

———. 2008b. Nitrogen Dioxide Information. Available: <http://www.epa.gov/air/nitrogenoxides/>. Accessed June 2008.

———. 2008c. Particulate Matter Information. Available: <http://www.epa.gov/ttnnaaqs/standards/pm/s_pm_index.html>. Accessed June 2008.

———. 2008d. Lead Information. Available: <http://www.epa.gov/air/lead/>. Accessed June 2008.

———. 2008e. The Green Book Nonattainment Areas for Criteria Pollutants. Available: <http://www.epa.gov/oar/oaqps/greenbk/index.html>. Accessed June 2008.

Western Regional Climate Center. 2008a. Monthly Data Run for South LT/Lake Tahoe. AP Calif. Available: <www.wrcc.dri.edu>. Accessed June 10, 2008.

———. 2008b. South LT/Lake Tahoe AP Calif—Wind Frequency Table. Available: <www.wrcc.dri.edu>. Accessed June 10, 2008.

WRCC. *See* Western Regional Climate Center.

Zhu, Y., W. C. Hinds, S. Kim, and S. Shen. 2002. Study of Ultrafine Particles Near a Major Highway with Heavy-duty Diesel Traffic. *Atmospheric Environment* 36:4323–4335.

7.5 SECTION 3.3, "ARCHAEOLOGICAL AND HISTORICAL RESOURCES"

Bloomer, W. W., S. A. Waechter, S. Lindström, and H. McCarthy. 1997. *Basalt Quarrying on Watson Creek: An Archaeological and Ethnographic Study in the Northern Lake Tahoe Basin, Volume I: Report*. Far Western Anthropological Group, Davis, CA. Report submitted to U.S. Forest Service, South Lake Tahoe, CA.

Clewlow, W. C. 1984. *Stage II Final Report for CA-Nev-407, Archaeological Data Recovery Program, Volumes I and II.* Report submitted to California Department of Transportation, District 3, Marysville, CA.

d'Azevedo, W. 1956. *Washo Place Names*. Manuscript on file, Anthropology Department, University of Nevada, Reno. Reno, NV.

———. 1986. Washoe. Pages 466–498 in W. d'Azevedo (ed.), *Handbook of North American Indians,* Volume 11. Smithsonian Institution. Washington, DC.

Downs, J. F. 1966. *The Two Worlds of the Washoe, an Indian Tribe of California and Nevada.* Holt, Rinehart and Winston. New York, NY.

Duke, D. G. 1998. *Basalt Resource Use and Technological Organization in the North-Central Sierra Nevada (California).* Unpublished M.A. thesis, University of Nevada, Reno. Reno, NV.

Elston, R. 1971. *A Contribution to Washo Archaeology.* Nevada Archaeological Survey Research Paper No. 2. University of Nevada, Reno. Reno, NV.

———. 1986. Prehistory of the Western Area. Pages 135–148 in W. L. d'Azevedo (ed.) *Handbook of North American Indians,* Volume II: Great Basin. Smithsonian Institution, Washington, DC.

Elston, R. G., J. O. Davis, A. Leventhal, and C. Covington. 1976. *The Archeology of the Tahoe Reach of the Truckee River.* Report to Tahoe Truckee Sanitation Agency, Truckee, CA. Report on file in special collections, Getchell Library, University of Nevada. Reno, NV.

Freed, S. A. 1966. *Washoe Habitation Sites in the Lake Tahoe Area.* Reports of the California Archaeological Survey No. 66. University of California, Archaeological Research Facility. Berkeley, CA.

Heizer, R. F., and A. B. Elsasser. 1953. *Some Archaeological Sites and Cultures of the Central Sierra Nevada.* University of California Archaeological Survey Reports, No. 21. Berkeley, CA.

Hoover, M. B., H. E. Rensch, and E. G. Rensch. 1966. *Historic Spots in California*. Palo Alto, CA: Stanford University Press.

Jacobsen, W. 1966. Washo Linguistic Studies. Pages 113–136 in W. d'Azevedo (ed.) The Current Status of Anthropological Research in the Great Basin, 1964. *Desert Research Institute Publications in the Social Sciences* 1:113–136.

Lindström, S. 1995. *Phase 1 Literature Review and Preliminary Assessment of Known and Potential Heritage Resources, Upper Truckee River Wetland Restoration Project, 400 Acres, South Lake Tahoe.* Prepared for Global Environmental, Sacramento. On file at the North Central Information Center, California State University, Sacramento. Sacramento, CA.

———. 1996. *Phase I Addendum Archaeological Field Inventory, Upper Truckee River Wetlands Restoration Project, 400 Acres, South Lake Tahoe*. Prepared for Global Environmental, Sacramento. On file at the North Central Information Center, California State University, Sacramento. Sacramento, CA.

———. 2004. *Heritage Resource Inventory—Sierra Tract Project Erosion Control Project.* Prepared for the City of South Lake Tahoe, South Lake Tahoe, CA.

Lindström, S., and J. Hall. 1998. *Archaeological Survey and Site Recording for the Pioneer Timber Sale, with a Contextual History of the Lake Valley Railroad*. On file at the U.S. Forest Service, Lake Tahoe Basin Management Unit (HRR #TB-96-5). South Lake Tahoe, CA.

Lindström, S., and M. Rucks. 2002. *Upper Truckee River Reclamation Project Heritage Resource Study, Phase IA, 837 Acres, South Lake Tahoe*. Prepared for Tahoe Resource Conservation District. On file at the North Central Information Center, California State University, Sacramento. Sacramento, CA.

———. 2003. *Upper Truckee River Reclamation Project, Upper Reach, Planning and Design, Heritage Resource Study Phase I*. Prepared for Swanson Hydrology. On file at the North Central Information Center, California State University, Sacramento. Sacramento, CA.

Lindström, S. G., and W. Bloomer. 1994. *Evaluation of Site Data Potential for 26Wa5322 (TY3437/05-10-280) Tahoe Meadows Prehistoric Site Complex Segment 17 of the Tahoe Rim Trail near Mt. Rose, Lake Tahoe, Nevada, Washoe County.* Submitted to U.S. Forest Service. Manuscript on file at Toiyabe National Forest. Sparks, NV.

Milliken, R., and W. R. Hildebrandt. 1997. *Culture Change along the Eastern Sierra Nevada/Cascade Front, Volume V: Honey Lake Basin*. Prepared for Tuscarora Gas Transmission Company. Davis, CA: Far Western Anthropological Group.

Myrick, D. 1992. *Railroads of Nevada*, Volume 1. San Diego, CA: Howell North Books.

Nevers, J. A. 1976. *Wa She Shu: A Tribal History*. Salt Lake City: University of Utah Printing Service.

Rucks, M. 1996. *Ethnographic Report for North Shore Ecosystems Heritage Resource Report* (HRR#05-19-297). Manuscript on file at the U.S. Forest Service, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

Saucedo, G. J. 2005. *Geologic Map of the Lake Tahoe Basin, California and Nevada*. Sacramento: California Geological Survey.

Scott, E. B. 1957. *The Saga of Lake Tahoe*. Volume I. Crystal Bay, NV: Sierra-Tahoe Publishing Company.

———. 1973. *The Saga of Lake Tahoe*. Crystal Bay, NV: Volume II. Sierra-Tahoe Publishing Company.

Stewart, O. C. 1966. Tribal Distributions and Boundaries in the Great Basin. Pages 167–238 in W. L. d'Azevedo et al. (eds.), *The Current Status of Anthropological Research in the Great Basin: 1964.* University of Nevada, Desert Research Institute Social Sciences and Humanities Publications 1. Reno, NV.

Tahoe Regional Planning Agency. 1971. *Cultural Significance of the Lake Tahoe Basin*. On file at the U.S. Forest Service, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

———. 2007a. TRPA *2006 Thresholds Evaluation Report*. Available: <http://www.trpa.org/default.aspx?tabid=174>. Accessed October 2007.

———. 2007b (September 26). Governing Board Meeting Notes. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

Washoe Tribal Council. 1994. *Comprehensive Land Use Plan*. On file at the Tribal Government Headquarters, Gardnerville, NV.

Wright, G. n.d. *The Papers of George F. Wright. Special Collections Department (90-37)*. On file at the University Library, University of Nevada, Reno. Reno, NV.

Zeier, C. D., and R. G. Elston. 1986. *The Archaeology of the Vista Site 26Wa3017.* Submitted to Cultural Resources Section, Environmental Services Division, Nevada Department of Transportation, Carson City, NV. Contract No. P51-84-013. Intermountain Research, Silver City, NV.

7.6 SECTION 3.4, "BIOLOGICAL RESOURCES: VEGETATION AND WILDLIFE"

AECOM. 2011. *2011 Willow Flycatcher and Shorebird Surveys at the Upper Truckee Marsh, South Lake Tahoe, California.* Draft memorandum submitted to California Tahoe Conservancy December 21, 2011.

Barbour, M. G., and J. Major (eds.). 1988. *Terrestrial Vegetation of California*. Wiley-Interscience, reprinted with an addendum by the California Native Plant Society. Sacramento, CA.

Beier, P. 1995. Dispersal of Juvenile Cougars in Fragmented Habitat. *Journal of Wildlife Management* 59:228–237.

Bloom, P. H. 1994. The Biology and Current Status of the Long-Eared Owl in Coastal Southern California. *Bulletin of the Southern California Academy of Science* 93:1–12.

Bombay, H. E., T. M. Ritter, and B. E. Valentine. 2003. A Willow Flycatcher Protocol for California. Available: <http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html>. Accessed March 6, 2010.

Bombay, H. L. 1999. *Scale Perspectives in Habitat Selection and Reproductive Success for Willow Flycatchers (*Empidonax traillii*) in the Central Sierra Nevada, California.* Master's thesis, California State University, Sacramento. Sacramento, CA.

Borgmann, K. L., and M. L. Morrison. 2004. *Wildlife Inventory and Monitoring in the Lake Tahoe Basin, California: Pre-Restoration*. A report to the Lake Tahoe Basin Management Unit, U.S. Forest Service, South Lake Tahoe, CA.

Bull, E. L., A. L. Wright, and M. G. Henjum. 1989. Nesting and Diet of Long-Eared Owls in Conifer Forests, Oregon. *Condor* 91:908–912.

California Department of Fish and Game. 2000. *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities.* (Revision of 1983 Guidelines.) Sacramento, CA.

———. 2009 (November 24). *Protocols for Surveying and Evaluating Impacts to Special Status Plant Populations and Natural Communities*. Sacramento, CA.

California Department of Parks and Recreation, Tahoe Regional Planning Agency, and U.S. Bureau of Reclamation. 2011. *Upper Truckee River Restoration and Golf Course Reconfiguration Project Final Environmental Impact Report/Environmental Impact Statement/Environmental Impact Statement*. Prepared by AECOM, South Lake Tahoe, CA.

California Invasive Plant Council. 2006 (February). *California Invasive Plant Inventory*. Cal-IPC Publication 2006-02. Berkeley, CA.

California Native Plant Society. 2007. *Electronic Inventory of Rare and Endangered Vascular Plants of California*. Available: <http://northcoast.com/~cnps/cgi-bin/cnps/sensinv.cgi>. Last updated June 1, 2007. Accessed June 13, 2007.

California Natural Diversity Database. 2007 (March). Rarefind: A Database Application for the Use of the California Department of Fish and Game's Natural Diversity Database. California Natural Heritage Division, California Department of Fish and Game, Sacramento, CA.

California Tahoe Conservancy. 1997. *Upper Truckee River & Wetlands Restoration Project, Conceptual Design Report*. South Lake Tahoe, CA. Prepared by Global Environmental, Sacramento, CA.

———. 2001. *Upper Truckee Marsh: Evaluation of Sensitive Resources.* South Lake Tahoe, CA.

———. 2002. Unpublished data for surveys at the Upper Truckee Marsh, 2002. Victor Insera, wildlife biologist. South Lake Tahoe, CA.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2003. *Upper Truckee River and Wetland Restoration Project: Processes and Functions of the Upper Truckee Marsh*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW and ENTRIX.

———. 2006a. *Upper Truckee River and Wetland Restoration Project. Final Concept Plan Report*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW, South Lake Tahoe, CA, and ENTRIX, Sacramento, CA.

———. 2007. *Upper Truckee Marsh Restoration Project: Tahoe Yellow Cress Management Plan*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW, South Lake Tahoe, CA.

Cal-IPC. *See* California Invasive Plant Council.

CDFG. *See* California Department of Fish and Game.

CNDDB. *See* California Natural Diversity Database.

CNPS. *See* California Native Plant Society.

Conservancy. *See* California Tahoe Conservancy.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. *The Birder's Handbook*. New York: Simon and Schuster.

Elliott-Fisk, D. L, T. C. Cahill, O. K. Davis, L. Duan, C. R. Goldman, G. E. Gruell, R. Harris, R. Kattelmann, R. Lacey, D. Leisz, S. Lindstrom, D. Machida, R. A. Rowntree, P. Rucks, D. A. Sharkey, S. L. Stephens, and D. S. Ziegler. 1997. *Lake Tahoe Case Study. Sierra Nevada Ecosystem Project. Addendum.* Davis: University of California, Davis, Center for Water and Wildland Resources.

Fields, Lisa. Environmental scientist. California Department of Parks and Recreation. September 2007—e-mail to Cyndie Walck of California Department of Parks and Recreation and Steve Henderson of EDAW (now AECOM) regarding 2007 wildlife data collection in Washoe Meadows State Park.

Grassland Water District. 2001. *Habitat Quality for Waterbirds.* Los Banos, CA. Cited in Conservancy and DGS 2003.

Green, G. A., H. L. Bombay, and M. L. Morrison. 2003. *Conservation Assessment of the Willow Flycatcher in the Sierra Nevada*. Unpublished report.

Grinnell, J., and A. H. Miller. 1944. *The Distribution of the Birds of California.* Berkeley, CA: Cooper Ornithological Club.

Gross, Shana. Rare plant coordinator. Lake Tahoe Basin Management Unit, U.S. Forest Service. South Lake Tahoe, CA. July 11, 2007—telephone conversation with Mark Bibbo of EDAW (now AECOM) regarding surveying for potential sensitive species in the Upper Truckee River and Marsh study area.

Haddad, N. M. 1999. Corridor and Distance Effects on Interpatch Movements: a Landscape Experiment with Butterflies. *Ecological Applications* 9:612–622.

Harris, J. H., S. D. Sanders, and M. A. Flett. 1987. Willow Flycatcher Surveys in the Sierra Nevada. *Western Birds* 18:27–36.

———. 1988. *The Status and Distribution of the Willow Flycatcher (*Empidonax traillii*) in the Sierra Nevada.* Wildlife Management Branch Administrative Report 88-1. Sacramento: California Department of Fish and Game.

Holland, R. F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Sacramento: California Department of Fish and Game, Nongame-Heritage Program.

Holt, D. 1997. The Long-Eared Owl (*Asio otus*) and Forest Management: A Review of the Literature. *Journal of Raptor Research* 31:175–186.

Knight, C. B., and D. N. Cole. 1995. Wildlife Responses to Recreationists. Pages 51–69 in R. L. Knight and J. K. Gutzwiller (eds.), *Wildlife and Recreationists*. Covelo, CA: Island Press.

Laves, K. S., and J. S. Romsos. 2000. *Wintering Bald Eagle* (Haliaeetus leucocephalus) *and Human Recreational Use of the South Shore of the Lake Tahoe Basin*. South Lake Tahoe, CA: U.S. Forest Service, Lake Tahoe Basin Management Unit.

MacWhirter, R. B., and K. L. Bildstein. 1996. Northern Harrier (*Circus cyaneus*). In A. Poole and F. Gill (eds.), *The Birds of North America*. Philadelphia, PA, and Washington, DC: The Academy of Natural Sciences and The American Ornithologists' Union.

Manley, P. N., and M. D. Schlesinger. 2001. *Riparian Biological Diversity in the Lake Tahoe Basin.* Final report for the California Tahoe Conservancy and the U.S. Forest Service.

Marks, J. S., D. L. Evans, and D. W. Holt. 1994. Long-Eared Owl (*Asio otus*). In A. Poole and F. Gill (eds.), *The Birds of North America*. Philadelphia, PA, and Washington, DC: The Academy of Natural Sciences and The American Ornithologists' Union.

Martin, J. W. 1987. Behavior and Habitat Use of Breeding Northern Harriers in Southwestern Idaho. *Journal of Raptor Research* 21:57–66.

Murphy, D. D., and C. M. Knopp (eds.). 2000. *Lake Tahoe Watershed Assessment.* General Technical Report PSW-GTR-175. Albany, CA: U.S. Forest Service, Pacific Southwest Research Station.

Orr, R. T., and J. Moffitt. 1971. *Birds of the Lake Tahoe Region*. San Francisco: California Academy of Sciences.

Pavlik, B., D. Murphy, and the Tahoe Yellow Cress Technical Advisory Group. 2002. *Conservation Strategy for Tahoe Yellow Cress* (Rorippa subumbellata). Stateline, NV: Tahoe Regional Planning Agency.

RHJV. *See* Riparian Habitat Joint Venture.

Riparian Habitat Joint Venture. 2004. *The Riparian Bird Conservation Plan: A Strategy for Reversing the Decline of Riparian Associated Birds in California.* Version 2.0. California Partners in Flight.

Robinson, Rick. Program coordinator. California Tahoe Conservancy, South Lake Tahoe, CA. January 3, 2003—telephone conversation with Linda Leeman of EDAW (now AECOM).

Rosenberg, D. K., B. R. Noon, and E. C. Meslow. 1997. Biological Corridors: Form, Function, and Efficacy. *Bioscience* 47:677–687.

Roukey, Kevin. Senior regulatory project manager. U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, Sacramento, CA. April 4, 2008—telephone conversation with Mark Bibbo, Petra Unger, and Gina Hamilton of EDAW (now AECOM) regarding wetland delineation needs for the Upper Truckee River and Marsh Restoration Project.

Rozance, M. A. 2007. *Summary of Upper Truckee Marsh Land Steward Findings 2003, 2004, 2005 and 2007*. Report on file at California Tahoe Conservancy, South Lake Tahoe, CA.

Sanchez, Raul. Wildlife biologist. U.S. Forest Service, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA. June 20, 2004—comments to EDAW (now AECOM) via the California Tahoe Conservancy.

Sanders, S. D., and M. A. Flett. 1989. *Ecology of a Sierra Nevada Population of Willow Flycatchers* (Epidonax trailii) 1986–1987. *Wildlife Management Branch Administrative Report 88-3*. Sacramento: California Department of Fish and Game.

Sawyer, J. O., and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. Sacramento: California Native Plant Society.

Sedgwick, J. A. 2000. Willow Flycatcher. In A. Poole and R. Fill (eds.), *The Birds of North America*. Philadelphia, PA, and Washington, DC: The Academy of Natural Sciences and The American Ornithologists' Union.

Shuford, W. D. 1998. *Surveys of Black Terns and Other Inland-breeding Seabirds in Northeastern California in 1997*. Report 90–03. Sacramento: California Department of Fish and Game, Bird and Mammal Conservation Program.

Siegel, R. B., and D. F. DeSante. 1999. *Draft Avian Conservation Plan for the Sierra Nevada Bioregion: Conservation Priorities and Strategies for Safeguarding Sierra Bird Populations.* Report to California Partners in Flight. Point Reyes Station, CA: The Institute for Bird Populations.

Simberloff, D., and J. Cox. 1987. Consequences and Costs of Conservation Corridors. C*onservation Biology* 1:63–71.

Small, A. 1994. *California Birds: Their Status and Distribution.* Vista, CA: Ibis Publishing.

Smith, Z. 2002. *Sierra-Tahoe Owl Migration Project; Fall 2001, Final Report.* A report to the U.S. Forest Service, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

Spencer, W. D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highway Administration.

Stanton, A., and B. Pavlik 2006 (March). *Tahoe Yellow Cress (*Rorippa subumbellata*) Draft 2005 Annual Report*. Prepared for Adaptive Management Working Group Executive Committee by BMP Ecosciences, San Francisco, CA.

State Parks et al. *See* California Department of Parks and Recreation, Tahoe Regional Planning Agency, and U.S. Bureau of Reclamation.

———. 2002a. *2001 Threshold Evaluation Report*. Chapter 7, Wildlife. Stateline, NV.

———. 2002b. Unpublished data from surveys at the Upper Truckee Marsh, 1999–2002. Provided by Shane Romsos, TRPA wildlife biologist.

———. 2006. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Stateline, NV.

———. 2007. *2006 Threshold Evaluation Report*. Tahoe Regional Planning Agency, Stateline, NV. Available: <http://www.trpa.org/default.aspx?tabid=174>.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

Thayer, Ted. Natural resource and science team leader. Tahoe Regional Planning Agency, Stateline, NV. March 28, 2008—e-mail correspondence with Steve Henderson of EDAW (now AECOM) (including memo attachment) regarding revisions to tree removal provisions of the TRPA Code of Ordinances.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Fish and Wildlife Service. 1996. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.* Sacramento, CA.

———. 2002. *Draft Environmental Impact Statement: Resident Canada Goose Management.* Division of Migratory Bird Management. Sacramento, CA.

———. 2007. Federal Endangered and Threatened Species that Occur or May Be Affected by Projects in the South Lake Tahoe (522B) USGS 7.5 Minute Quad. Available: <http://www.fws.gov/sacramento/es/spp_lists/QuickList.cfm?ID=522B>. Last updated August 16, 2007. Accessed October 1, 2007.

U.S. Forest Service. 1988. *Land and Resource Management Plan*. Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

———. 2000. *Draft Lake Tahoe Basin Management Unit Bald Eagle Management Plan*. Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

———. 2001. *Sierra Nevada Forest Plan Amendment Environmental Impact Statement (SNFPA EIS) and Record of Decision (ROD).* Pacific Southwest Region, Vallejo, CA.

———. 2004. *Sierra Nevada Forest Plan Amendment Supplemental Environmental Impact Statement (SNFPA SEIS).* Pacific Southwest Region, Vallejo, CA.

———. 2005. Lake Tahoe Basin Management Unit (LTBMU) Sensitive Species List. Amended from U.S. Forest Service Region 5 Sensitive Species List (1998). Region 5. Vallejo, CA.

USFS. *See* U.S. Forest Service.

USFWS. *See* U.S. Fish and Wildlife Service.

WBS. *See* Western Botanical Services.

Western Botanical Services. 1995. *Baseline Botanical Study for the Upper Truckee River and Wetland Restoration Project.* Reno, NV. Prepared for Global Environmental and the California Tahoe Conservancy.

———. 1999. *Botanical Survey for the Upper Truckee River and Wetland Restoration Project.* Reno, NV. Prepared for EDAW and California Tahoe Conservancy.

Zeiner, D. C., W. F Laudenslayer Jr., K. E. Mayer, and M. White (eds.). 1990. *California's Wildlife: Volume II: Birds*. Sacramento: California Department of Fish and Game.

7.7 SECTION 3.5, "FISHERIES"

California Department of Fish and Game. 2002 (July). Wildlife Habitat Relationship System. Electronic Database. Sacramento, CA.

———. 2011. *Special Animals List.* Sacramento, CA.

California Department of General Services, Office of Project Development and Management, and California Tahoe Conservancy. 1997 (October). *Upper Truckee River and Wetlands Restoration Project: Phase I Report.* Prepared by Global Environmental.

California Tahoe Conservancy. 2007a. *Fish Distribution and Abundance Report for the Sunset Stables Restoration and Resource Management Plan.* Prepared by ENTRIX.

———. 2007b. *Western Pearlshell Mussel Survey Report for the Sunset Stables Restoration and Resource Management Plan.* Prepared by ENTRIX.

CDFG. *See* California Department of Fish and Game.

Conservancy. *See* California Tahoe Conservancy.

DGS and Conservancy. *See* California Department of General Services, Office of Project Development and Management, and California Tahoe Conservancy.

Dill, W. A., and A. J. Cordone. 1997. *History and Status of Introduced Fishes in California, 1871–1996.* California Department of Fish and Game Fish Bulletin 178. Sacramento, CA.

ENTRIX. 2005 (December 19). *Final White Paper Turbidity and Suspended Sediment Effects on Salmonids and Aquatic Biota in Flowing Systems.* Sacramento, CA. Prepared for the Rock Creek-Cresta Project Ecological Resources Committee, on behalf of Pacific Gas and Electric Company, San Francisco, CA.

Herbst, D. 2004. Establishing Reference Conditions for Streams and Measuring Ecological Responses to Management Actions Using Aquatic Invertebrate Biological Assessments. Pages 133–141 in D. Murphy and P. A. Stine (eds.), *Proceedings of the Sierra Nevada Science Symposium*. General Technical Report PSW-GTR-193. Albany, CA: U.S. Forest Service, Pacific Southwest Research Station.

Lemmers, C., and M. Santora. 2012. *Basin-wide Native Non-game Fish Assessment: 2011 Annual Report.* South Lake Tahoe, CA: U.S. Forest Service, Lake Tahoe Basin Management Unit.

Moore, M. 2010 (December 17). *Upper Truckee River Lahontan Cutthroat Trout Restoration Program, Final Report—2010 Field Season*. South Lake Tahoe, CA: U.S. Forest Service, Lake Tahoe Basin Management Unit, Ecosystem Conservation Department.

Moyle, P. B. 2002. *Inland Fishes of California, Revised and Expanded*. Berkeley and Los Angeles: University of California Press.

NDOW. *See* Nevada Department of Wildlife.

Nedeau, E. J., A. K. Smith, and J. Stone. 2005. *Freshwater Mussels of the Pacific Northwest.* Vancouver, WA: U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Nevada Department of Wildlife. 2011. Native Cutthroat Trout Stocked in Lake Tahoe. Press Release. July 15, 2011. Available: <http://ndow.org/about/news/pr/2011/july/lct_release.shtm>.

Schlesinger, M. D., and J. S. Romsos. 2000. Vertebrate Species of the Lake Tahoe Basin. In D. D. Murphy and C. M. Kopp (eds.), *Lake Tahoe Watershed Assessment.* General Technical Report PSW-GTR-176. Albany, CA: U.S. Forest Service, Pacific Southwest Research Station.

Snider, W. M., J. L. Kershner, and G. E. Smith. 1987. Instream Flow Requirements Lake Tahoe Basin California and Nevada. *California Department of Fish and Game* 87(1):48–65.

Tahoe Regional Planning Agency. 1982a. *Study Report for the Establishment of Environmental Threshold Carrying Capacities.* Stateline, NV.

———. 1982b. *Environmental Impact Statement for the Establishment of Environmental Threshold Carrying Capacities.* Stateline, NV.

———. 1996. *Draft 1996 Evaluation Report: Environmental Carrying Capacities and the Regional Plan Package for the Lake Tahoe Basin.* Stateline, NV.

———. 2004 (December). *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by the Governing Board on September 17, 1986; updated December 2004. Stateline, NV.

———. 2007 (September). *2006 Threshold Evaluation Report*. Stateline, NV.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

Taylor, Tom. Fisheries biologist. Cardno ENTRIX, Sacramento, CA. April 10, 2012—e-mail to Virginia Mahacek of Cardno ENTRIX reporting information obtained from Scott Carroll of California Tahoe Conservancy regarding Lahontan cutthroat trout released near Cave Rock by the Nevada Department of Wildlife and captured during the U.S. Forest Service Lake Tahoe Basin Management Unit's Basin-wide Non-game Fish Assessment.

Tracy, J. C., and A. R. Rost. 2003. *Stream Flow Conditions of Lake Tahoe Streams Based on Gaged Flows and Statistically Modeled Flow Estimates: Implications for Salmonid Fish Population Management.* Reno, NV: Desert Research Institute.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Fish and Wildlife Service. 2008. Endangered Species Program: Threatened and Endangered Species Database System. Available: <http://www.fws.gov/endangered/wildlife.html>. Accessed November 2008.

Upper Truckee River Watershed Advisory Group. 2012 (April 11). Meeting Notes. Citation for Q & A session with Mike Cotter, USFWS, about Lahontan cutthroat trout reported in the meeting notes.

U.S. Forest Service. 1988. *Land and Resource Management Plan. Lake Tahoe Basin Management Unit.* Albany, CA: Pacific Southwest Research Station.

———. 2004 (October). *National Strategy and Implementation Plan for Invasive Species Management.* USDA FS-805. Washington, DC.

———. 2012. Lake Tahoe Basin Management Unit Website. Available: <http://www.fs.fed.us/r5/ltbmu/local/invasive/>. Accessed November 21, 2012.

USFS. *See* U.S. Forest Service.

USFWS. *See* U.S. Fish and Wildlife Service.

UTRWAG. *See* Upper Truckee River Watershed Advisory Group.

Washoe Meadows State Park. 1994. *Fish Population Evaluation for the Upper Truckee River (El Dorado County).* Native Fish Habitat Enhancement Project. Prepared by D. Rischbieter.

7.8 SECTION 3.6, "GEOLOGY AND SOILS, MINERAL RESOURCES, AND LAND CAPABILITY AND COVERAGE"

Argus, D. F., and R. G. Gordon. 1991. Current Sierra Nevada–North American Motion from Very Long Baseline Interferometry: Implications for the Kinematics of the Western United States. *Geology* 19:18085–1088.

Bailey, R. G. 1974. *Land-Capability Classification of the Lake Tahoe Basin, California-Nevada: A Guide to Planning*. South Lake Tahoe, CA: U.S. Forest Service and Tahoe Regional Planning Agency.

Busch, L. 2001. *Mineral Land Classification of El Dorado County, California*. Open File Report 2000-03. Sacramento: California Department of Conservation, Division of Mines and Geology.

California Geological Survey. 2003 (April). Seismic Shaking Hazards in California. Available: <http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamain.html>. Accessed March 18, 2010.

———. 2005. Earthquake Shaking Potential Map for Portions of Eastern California and Western Nevada. Sacramento, CA.

CGS. *See* California Geological Survey.

EDAW (now AECOM). 2007. *Upper Truckee River and Wetland Restoration Project Lower West Side Component Vegetation Monitoring Report for Fourth and Fifth Years.* Sacramento, CA.

El Dorado County. 2004 (July 19). *El Dorado County General Plan*. Placerville, CA.

Hart, E. W., and W. A. Bryant. 1999. *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps.* Special Publication 42. Sacramento: California Department of Conservation, Division of Mines and Geology.

Ichinose, G. A., S. Kenji, J. G. Anderson, R. A. Schweickert, and M. M. Lahren. 1999. The Potential Hazard from Tsunami and Seiche Waves Generated by Future Large Earthquakes within the Lake Tahoe Basin, California-Nevada. *Geophysical Research Letters* 27:1203–1206.

Natural Resources Conservation Service. 2007. *Soil Survey of the Tahoe Basin Area, California and Nevada*. Soil Data Mart. Available: <http://soildatamart.nrcs.usda.gov/Manuscripts/CA693/0/Tahoe_CA.pdf>. Accessed March 11, 2008.

NRCS. *See* Natural Resources Conservation Service.

Saucedo, G. J. 2005. Geologic Map of the Lake Tahoe Basin, California and Nevada. Regional Geologic Map Series, Map No. 4. Sacramento: California Geological Survey.

Sawyer, T. L. 1999. East Tahoe Fault. In U.S. Geological Survey, *Quaternary Fault and Fold Database of the United States.* Available: <http://earthquakes.usgs.gov/regional/qfaults>. Accessed September 24, 2008.

Schweickert, R. A., M. M. Lahren, K. Smith, R. Karlin, J. Howle. 2000. Lake Tahoe Active Faults, Landslides, and Tsunamis. GSA Field Guide 2, Great Basin Sierra Nevada.

Seitz, G. G., and G. Kent. 2004. *Closing the Gap Between On and Offshore Paleoseismic Records in the Lake Tahoe Basin.* Volume 46, U.S. Geological Survey External Research Support, Annual Project Summaries.

Smith, K. D., D. von Seggern, G. Blewitt, L. Preston, J. G. Anderson, B. P. Wernicke, and J. L. Davis. 2004. Evidence for Deep Magma Injection Beneath Lake Tahoe, Nevada-California. *Science* 305:1277–1280.

Tahoe Regional Planning Agency. 2004. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by the Governing Board on September 17, 1986; updated December 2004. Stateline, NV.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

Wakabayashi, J., and T. L. Sawyer. 2000. Neotectonics of the Sierra Nevada and the Sierra Nevada—Basin and Range Transition, California, with Field Trip Stop Descriptions for the Northeastern Sierra Nevada. Pages 173–212 in *Field Guide to the Geology and Tectonics of the Northern Sierra Nevada.* Prepared for California Division of Mines and Geology, Sacramento, CA.

7.9 SECTION 3.7, "HUMAN HEALTH/RISK OF UPSET"

California Department of Public Health. 2012. *Best Management Practices for Mosquito Control on California State Properties: Recommendations of the California Department of Public Health*. Sacramento, CA.

California Department of Toxic Substances Control. 2012. Hazardous Waste and Substances Site List. Available: <http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm>. Accessed January 31, 2012.

California Tahoe Conservancy and California Department of General Services. 2006 (June). *Upper Truckee River and Wetland Restoration Project Concept Plan Report*. South Lake Tahoe, CA. Prepared by EDAW, ENTRIX, and Valley & Mountain Consultants.

Camp Dresser & McKee. 2007. *Draft Preliminary Wildlife Hazard Assessment, Lake Tahoe Airport.* South Lake Tahoe, CA.

CDM. *See* Camp Dresser & McKee.

CDPH. *See* California Department of Public Health.

City of South Lake Tahoe. 2007 (July). *Lake Tahoe Airport Comprehensive Land Use Plan.* South Lake Tahoe, CA. Prepared by J. G. Brand and R. D. French, South Lake Tahoe, CA.

Conservancy. *See* California Tahoe Conservancy.

CSLT. *See* City of South Lake Tahoe.

DTSC. *See* California Department of Toxic Substances Control.

El Dorado County Department of Environmental Management. 2010. Public Notice, Environmental Management Department. *Case Closure for Leaking Underground Storage Fact Sheet.*

———. 2012a. Vector Control District. Available: <http://www.co.el-dorado.ca.us/VectorControl/>. Accessed January 31, 2012.

———. 2012b. Mosquitos in the Tahoe Area. Available: <http://www.edcgov.us/Government/EMD/VectorControl/Mosquitoes_in_the_Tahoe_area.aspx>. Accessed January 31, 2012.

EDCDEM. *See* El Dorado County Department of Environmental Management.

EPA. *See* U.S. Environmental Protection Agency.

FAA. *See* Federal Aviation Administration.

Federal Aviation Administration. 2007 (August 28). *Advisory Circular: Hazardous Wildlife Attractants on or Near Airports.* AC No. 150/5200-33B. Washington, DC: U.S. Department of Transportation.

———. 2012. FAA National Wildlife Strike Database. Available: <http://wildlife-mitigation.tc.faa.gov/wildlife>. Accessed January 31, 2012.

State Water Resources Control Board. 2012. Geotracker. Available: <http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=2433+Venice+Drive+East%2C+South+Lake+Tahoe%2C+CA>. Accessed January 30, 2012.

SWRCB. *See* State Water Resources Control Board.

Tahoe Regional Planning Agency. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Environmental Protection Agency. 2009. Superfund Site Information. Available: <http://cumulis.epa.gov/supercpad/cursites/srchsites.cfm>. Accessed January 30, 2012.

———. 2012. EnviroMapper, South Lake Tahoe, California. Available: <http://www.epa.gov/emefdata/em4ef.home>. Accessed January 30, 2012.

U.S. Forest Service, Lake Tahoe Basin Management Unit. 2009. Meyers Landfill Fact Sheet, Update on Remedial Activities, November 2009. Available: <http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5227015.pdf>. Accessed January 30, 2012.

———. 2010. Meyers Landfill, OU-1Waste Mass Remedial Action. Available: <http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5227015.pdf>. Accessed January 30, 2012.

U.S. Forest Service, Tahoe Regional Planning Agency, Nevada Tahoe Resource Team, Nevada Division of Forestry, Nevada Division of State Lands, Nevada Fire Safe Councils, California Department of Forestry and Fire Protection, California Tahoe Conservancy, California State Parks, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Tahoe-Douglas Fire Protection District, Lake Valley Fire Protection District, Meeks Bay Fire Protection District, South Lake Tahoe Fire Department, and Fallen Leaf Fire Department. 2007 (December). *Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy*. Available: <http://www.fs.usda.gov/detail/ltbmu/landmanagement/?cid=fsm9_046474>. Accessed November 24, 2008.

USFS et al. *See* U.S. Forest Service, Tahoe Regional Planning Agency, Nevada Tahoe Resource Team, Nevada Division of Forestry, Nevada Division of State Lands, Nevada Fire Safe Councils, California Department of Forestry and Fire Protection, California Tahoe Conservancy, California State Parks, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Tahoe-Douglas Fire Protection District, Lake Valley Fire Protection District, Meeks Bay Fire Protection District, South Lake Tahoe Fire Department, and Fallen Leaf Fire Department.

Walton, W. E. 2003. *Managing Mosquitoes in Surface-Flow Constructed Treatment Wetlands.* Publication 8117. Oakland, CA: University of California, Division of Agriculture and Natural Resources.

7.10 SECTION 3.8, "HYDROLOGY AND FLOODING"

Allander, K. K. 2003. Trout Creek—Evaluating Ground-Water and Surface-Water Exchange along an Alpine Stream, Lake Tahoe, California. Pages 35–45 in D. A. Stonestrom and J. Constantz (eds.), *Heat as a Tool for Studying the Movement of Ground-Water Near Streams*. U.S. Geological Survey Circular 1260.

Bailey, R. 1974. *Land-Capability Classification of the Lake Tahoe Basin, California-Nevada: A Guide to Planning*. Prepared for U.S. Forest Service, in cooperation with Tahoe Regional Planning Agency.

California Tahoe Conservancy and California Department of General Services. 2003. *Upper Truckee River and Marsh Restoration Project Processes and Functions of the Upper Truckee Marsh, South Lake Tahoe, California.* Prepared by EDAW and ENTRIX.

———. 2005. *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report.* Prepared by EDAW and ENTRIX.

Coats, R. N., J. Perez-Losada, G. Schladow, R. Richards, and C. R. Goldman, 2006. The Warming of Lake Tahoe. *Climatic Change* 76:121–148.

Coats, R., and C. Goldman. 2001. Patterns of Nitrogen Transport in Streams of the Lake Tahoe Basin, California-Nevada. *Water Resources Research* 37(2):405–415.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Crompton, E. J., G. W. Hess, and R. P. Williams 2002 (July). *Estimated Flood Flows in the Lake Tahoe Basin, California and Nevada*. U.S. Geological Survey Fact Sheet FS-035-02.

CTC. *See* California Tahoe Conservancy.

Dettinger, M. D. 2004. From Climate-Change Spaghetti to Climate-Change Distributions for 21st Century California. *San Francisco Estuary and Watershed Science* 3(1). Available: <http://repositories.cdlib.org/jmie/sfews/vol3/iss1/art4>.

Dettinger, M., H. Hidalgo, T. Das, D. Cayan, and N. Knowles. 2009. *Projections of Potential Flood Regime Changes in California*. Prepared for California Energy Commission, PIER Energy Related Environmental Research Program. CEC-500-2009-050F.

EPA. *See* U.S. Environmental Protection Agency.

Federal Emergency Management Agency. 2008a. Flood Insurance Rate Map: El Dorado County, California (Unincorporated Areas). Panel 367 of 1125. Map Number 06017C0367E. Effective date: September 26, 2008. Available: <http://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay>. Accessed March 4, 2010.

———. 2008b. Flood Insurance Rate Map: El Dorado County, California (Unincorporated Areas). Panel 367 of 1125. Map Number 06017C0380E. Effective date: September 26, 2008. Available: <http://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay>. Accessed March 4, 2010.

———. 2008c. Flood Insurance Rate Map: El Dorado County, California (Unincorporated Areas). Panel 367 of 1125. Map Number 06017C0387E. Effective date: September 26, 2008. Available: <http://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay>. Accessed March 4, 2010.

FEMA. *See* Federal Emergency Management Agency.

Gibson, Charlie. Engineering technician. City of South Lake Tahoe, South Lake Tahoe, CA. May 2002—personal communication with Carol Schupbach of ENTRIX regarding Colorado Avenue drainage.

Green, C. T. 1998. *Integrated Studies of Hydrogeology and Ecology of Pope Marsh, Lake Tahoe*. M.S. thesis in hydrologic sciences, University of California, Davis. Davis, CA.

Ichinose, G. A., K. Satake, J. G. Anderson, R. A. Schweickert, and M. W. Lahren. 2000. The Potential Hazard from Tsunami and Seiche Waves Generated by Future Large Earthquakes within the Lake Tahoe Basin. *California-Nevada, Geophysical Research Letters* 27:1203–1206.

Jeton, A. E. 1999. *Precipitation-Runoff Simulations for the Lake Tahoe Basin, California and Nevada*. Water Resources Investigations Report 99-4110. U.S. Geological Survey.

Jeton, A. E., M. D. Dettinger, and J. L. Smith. 1996. *Potential Effects of Climate Change on Streamflow, Eastern and Western Slopes of the Sierra Nevada, California and Nevada*. Water Resources Investigations Report 95-4260. U.S. Geological Survey.

Knowles, N., and D. R. Cayan. 2004. Elevational Dependence of Projected Hydrologic Changes in the San Francisco Estuary and Watershed. *Climate Change* 62:319–336.

Knowles, N., M. Dettinger, and D. Cayan. 2007. *Trends in Snowfall Versus Rainfall for the Western United States, 1949–2001*. Prepared for California Energy Commission, PIER Energy Related Environmental Research Program. CEC-500-2007-032.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. Plan effective March 31, 1995, amendments effective August 1995 through December 2005. South Lake Tahoe and Victorville, CA.

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

Loeb, S. L. 1987. *Groundwater Quality within the Lake Tahoe Basin*. Institute of Ecology, Division of Environmental Studies, University of California, Davis. Davis, CA.

Marvin E. Davis & Associates. 2005 (May 13). *Geotechnical Investigation: Proposed Upper Truckee River and Wetland Restoration Project, South Lake Tahoe, El Dorado County, California*. Draft memorandum submitted to ENTRIX.

Moser, S., G. Franco, W. Chou, and D. Cayan. 2009 (May). *The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California*. Prepared for California Energy Commission, PIER Energy Related Environmental Research Program. California Climate Change Center Special Report CEC-500-2008-071.

NESC. *See* Nevada Earthquake Safety Council.

Nevada Earthquake Safety Council. 2007. Probabilities of Earthquakes of Various Magnitudes Occurring within 50 Years within 50 Kilometers of Major Communities in Nevada.

Reclamation. *See* U.S. Bureau of Reclamation.

Roberts, D., and J. Reuter. 2007 (September). *Draft Lake Tahoe Total Maximum Daily Load Technical Report*. Prepared for Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection.

Rodgers, S. City of South Lake Tahoe, South Lake Tahoe, CA. August 23, 1999—telephone conversation with Martin Ostendorf of ENTRIX regarding flooding on Colorado Court.

Rowe, T. G., and K. K. Allander. 2000. *Surface- and Ground-Water Characteristics in the Upper Truckee River and Trout Creek Watersheds, South Lake Tahoe, California and Nevada, July–December 1996.* Water-Resources Investigations Report 00-4001. U.S. Geological Survey.

Rowe, T. G., D. K. Saleh, S. A. Watkins, and C. R. Kratzer. 2002. *Streamflow and Water-Quality Data for Selected Watersheds in the Lake Tahoe Basin, California and Nevada, through September 1998.* U.S. Geological Survey Water Resources Investigations Report 02-4030, Carson City, NV.

Schweickert, R. A., M. M. Lahren, K. D. Smith, J. F. Howle, and G. Ichinose. 2004. Transtensional Deformation in the Lake Tahoe Region, California and Nevada, USA. *Tectonophysics* 392(1–4):303–323.

Tahoe Regional Planning Agency. 1981. *Volume I: Water Quality Management Plan*. Available: <http://www.trpa.org/documents/docdwnlds/208_Vol_I.pdf>. Accessed August 15, 2008.

———. 2002. *Tahoe Keys Marina Master Plan*. Adopted by TRPA Governing Board June 2001. TRPA Adopting Ordinance Number 2001-12. Amendment Number 1, May 22, 2002. Stateline, NV.

———. 2002a. Final Draft of the 2001 Threshold Evaluation Report. Stateline, NV.

———. 2004 (March). *Annual Water Quality Report*. Stateline, NV.

———. September 2007a. *2006 Threshold Evaluation Report*. Stateline, NV. Available: <http://www.trpa.org/default.aspx?tabindex=1&tabid=174>. Accessed August 2008.

———. 2007b. *Pathway 2007 Partner Agencies*. Stateline, NV. Available: <http://www.pathway2007.org/partners.html>. Last updated 2007. Accessed June 2008.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TERC. *See* University of California, Davis, Tahoe Environmental Research Center.

Tetra Tech. 2007. *Watershed Hydrology Modeling and Sediment and Nutrient Loading Estimation for the Lake Tahoe Total Maximum Daily Load*. Revised. Prepared for Lahontan Regional Water Quality Control Board, South Lake Tahoe, CA, and University of California, Davis, CA.

Thodal, C. E. 1997. *Hydrogeology of Lake Tahoe Basin, California and Nevada, and Results of a Groundwater Quality Monitoring Network, Water Years 1990–1992.* U.S. Geological Survey Water-Resources Investigations Report 97-4072.

TRPA. *See* Tahoe Regional Planning Agency.

University of California, Davis, Tahoe Environmental Research Center. 2009. *Tahoe: State of the Lake Report 2009*. Incline Village, NV.

USACE. *See* U.S. Army Corps of Engineers.

U.S. Army Corps of Engineers. 1999. *Hydrology Report for Upper Truckee River Aquatic Ecosystem Restoration Project.* Sacramento, CA.

———. 2002. *Lake Tahoe Basin Hydrology Study: Compilation and Evaluation of Available Hydrologic Information.*

———. 2003 (October). *Lake Tahoe Basin Framework Study: Groundwater Evaluation, Lake Tahoe Basin, California and Nevada.* Final. Sacramento, CA.

———. 2007. *Investigations to Determine Regional Flow-Frequency Relationships and Watershed Modeling Recommendations for Hydrologic Design Criteria for the Lake Tahoe Basin.* Prepared for Lake Tahoe Storm Water Quality Improvement Committee.

U.S. Bureau of Reclamation. 2008 (January). *Truckee River Operating Agreement Final Environmental Impact Statement/Environmental Impact Report*. Prepared along with U.S. Fish and Wildlife Service, U.S. Bureau of Indian Affairs, and California Department of Water Resources.

U.S. Environmental Protection Agency. 2010. Executive Order 11988: Floodplain Management. Available: <http://www.epa.gov/owow/wetlands/regs/eo11988.html>. Accessed March 4, 2010.

7.11 SECTION 3.9, "GEOMORPHOLOGY AND WATER QUALITY"

2ndNature, Inc. 2006a (March). *Final Report: City of South Lake Tahoe Upper Truckee River Sediment Monitoring: Middle Reach (2002–2005).* Prepared for the City of South Lake Tahoe.

———. 2006b. *Final Report: Lake Tahoe BMP Monitoring Evaluation Process: Synthesis of Existing Research*. Prepared for U.S. Forest Service, Lake Tahoe Basin Management Unit, South Lake Tahoe, CA.

Adams, K. D., and T. B. Minor. 2001 (February). *Historic Shoreline Change at Lake Tahoe from 1938 to 1998: Implications for Water Clarity.* Prepared for Tahoe Regional Planning Agency.

———. 2002. Historic Shoreline Change at Lake Tahoe from 1938 to 1998 and Its Impact on Sediment and Nutrient Loading. *Journal of Coastal Research* 18(4):637–651.

Budlong, G. M. 1971. *Processes of Beach Change at Tahoe Keys, California: An Example of Man and Nature as Geomorphological Agents.* Unpublished master's thesis, University of California, Davis. Davis, CA.

California Tahoe Conservancy. 2001. *Lower West Side Wetland Restoration Project Proposed Mitigated Negative Declaration*. South Lake Tahoe, CA.

California Tahoe Conservancy and California Department of General Services. 2003. *Upper Truckee River and Wetland Restoration Project Processes and Functions of the Upper Truckee Marsh*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW, Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2005 (September). *Alternatives Evaluation Report*. South Lake Tahoe, CA.

———. 2006a. *Upper Truckee River and Marsh Restoration Project Final Concept Plan.* South Lake Tahoe, CA.

———. 2006b. *Notice of Preparation of a Draft Environmental Impact Report (EIR)/ Environmental Impact Statement (EIS)/EIS for the Upper Truckee River and Marsh Restoration Project.* South Lake Tahoe, CA.

———. 2007. *Upper Truckee River and Marsh Restoration Project Schematic Design.* South Lake Tahoe, CA.

———. 2008 (February). *Sunset Stables Restoration & Resource Management Project Draft: Alternatives Evaluation Memorandum*. Prepared by ENTRIX, South Lake Tahoe, CA.

California Water Boards and Nevada Division of Environmental Protection. 2007 (September). *Draft Lake Tahoe Total Maximum Daily Load Technical Report—California and Nevada.* Prepared by D. M. Roberts and J. E. Reuter.

———. 2008. *Lake Tahoe TMDL Pollutant Reduction Opportunity Report*. September 2007. Available: <http://www.swrcb.ca.gov/lahontan/water_issues/programs/tmdl/lake_tahoe/docs/presentations/pro_rpt_final.pdf>.

Coats, R. N., and C. R. Goldman. 2001. Patterns of Nitrogen Transport in Streams of the Lake Tahoe Basin, California-Nevada. *Water Resources Research* 37(2):405–415.

Conservancy. *See* California Tahoe Conservancy.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

CWB and NDEP. *See* California Water Boards and Nevada Division of Environmental Protection.

Dillingham Environmental Company. 1970. *Final Report: An Analysis of Shoreline Erosion at Tahoe Keys South Lake Tahoe, California*.

El Dorado County. 2004 (July). *El Dorado County General Plan*. Placerville, CA.

———. 2007 (March). Chapter 15.14, Grading, Erosion and Sediment Control Ordinance, Placerville, CA.

Fogg, G. E., M. E. Meays, J. C. Trask, C. T. Green, E. M. LaBolle, T. W. Schenk, and D. E. Rolston. 1998. *Impacts of MTBE on California Groundwater*. Report to the Governor. Davis, CA: Hydrologic Sciences, Department of Land, Air and Water Resources, University of California, Davis.

Foxx, Nielsen and Associates. 1989 (May). *Preliminary Geologic Report Addressing Littoral Sand Transport: Proposed Ski Run Marina, South Lake Tahoe, California.* Prepared for LSA.

Green, C. T. 1998. *Integrated Studies of Hydrogeology and Ecology of Pope Marsh, Lake Tahoe.* Master of science thesis in hydrologic sciences, University of California, Davis. Davis, CA.

Gunter, M. K. 2005. *Characterization of Nutrient and Suspended Sediment Concentrations in Stormwater Runoff in the Lake Tahoe Basin.* Master of science thesis in hydrology, University of Nevada. Reno, NV.

Heyvaert, A. C., J. E. Reuter, and S. H. Hackley. 2001. *Progress Report and Preliminary Results from Monitoring and Evaluation of Selected California Tahoe Conservancy Stormwater Projects.* Prepared for California Tahoe Conservancy. University of California, Davis, Tahoe Research Group.

Heyvaert, A., J. E. Reuter, and E. Strecker. 2006 (August). *Evaluation of Selected Issues Relevant to Stormwater Treatment Practices in the Lake Tahoe Basin*. Report submitted to California Tahoe Conservancy.

Heyvaert, A. C. 1998. *The Biogeochemistry and Paleolimnology of Sediments from Lake Tahoe, California-Nevada.* Ph.D. dissertation. University of California, Davis, CA.

Jassby, A. D., J. E. Reuter, and C. R. Goldman. 2003. Determining Long-Term Water Quality Change in the Presence of Climate Variability: Lake Tahoe (U.S.A.). *Canadian Journal of Fisheries and Aquatic Science* 60:1452–1461.

Kemper, Lauri, P.E. Assistant executive officer and ombudsman. Lahontan Regional Water Quality Control Board, South Lake Tahoe. March 26, 2010—personal communication with Virginia Mahacek during interagency consultation teleconference.

Kim, J. G. 1999. *Paleoecological Studies for Assessment of Anthropogenic Impacts in Montane, Mediterranean, and Tropical Marshes.* Ph.D. dissertation in ecology. University of California, Davis. Davis, CA.

Kroll, C. G. 1976. *Sediment Discharge from Cut-Slopes in the Lake Tahoe Basin, California*. U.S. Geological Survey Water Resources Investigations 76-19. Prepared in cooperation with California Department of Transportation Division of Highways.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. Plan effective March 31, 1995, amendments effective August 1995 through December 2005. South Lake Tahoe and Victorville, CA.

———. 2004. *Board Order No. R6V-2004-0024-A1 WDID No. 6A090089000: Amended National Pollutant Discharge Elimination System Permit for Tahoe Keys Property Owners Association Lagoon and Marina Water Circulation System.*

———. 2005. *Board Order No. R6T-2005-0015 NPDES CAG616003: Industrial Stormwater NPDES Permit and General WDRs for Marinas in the Lake Tahoe Hydrologic Unit.* Available: <http://www.swrcb.ca.gov/lahontan/water_issues/programs/permitting/index.shtml>. Last updated April 26, 2007.

Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection. 2007. *Charting a Course to Clarity: The Lake Tahoe Total Maximum Daily Load (TMDL).* Available: <http://www.waterboards.ca.gov/lahontan/water_issues/programs/tmdl/lake_tahoe/docs/cac_208_09_final.pdf>.

———. 2006. Board Order No. R6V-2004-0024-A1, WDID NO. 6A090089000, Amended National Pollutant Discharge Elimination System Permit for Tahoe Keys Property Owners Association Lagoon and Marina Water Circulation System. Available: <http://www.waterboards.ca.gov/lahontan/board_decisions/adopted_orders/2006/docs/r6t2004_0024_a1_tkpoa_amd_npdes.pdf>.

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

Lahontan RWQCB and NDEP. *See* Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection.

Loeb, S. L. 1987. *GW Quality within the L.T. Basin*. Davis, CA: University of California, Davis, Institute of Ecology, Division of Environmental Studies.

Orme, A. T. 1971 (May). *The Shore-Zone System for Lake Tahoe*. Prepared under Comprehensive Planning Grant: Project No. NEV-30 to Tahoe Regional Planning Agency from Department of Housing and Urban Development.

Osborne, R. H., M. C. Edelman, J. M. Gaynor, and J. M. Waldron. 1985. *Sedimentology of the Littoral Zone in Lake Tahoe, California-Nevada*. Department of Geographical Sciences, University of Southern California. Prepared for California State Lands Commission.

Perez-Losada, J., and S. G. Schladow. 2004. *Impact of Streamflow and Temperature on the Extent of the Mixing Depth and Secchi Depth in Lake Tahoe*. Abstract—Second Biennial Conference on Tahoe Environmental Concerns, May 17–19, 2004.

Rabidoux, A. A. 2005. *Spatial and Temporal Distribution of Fine Particles and Elemental Concentrations in Suspended Sediments in Lake Tahoe Streams, California-Nevada.* Master of science thesis, University of California, Davis. Davis, CA.

Reuter, J. R., and W. W. Miller. 2000. Aquatic Resources, Water Quality and Limnology of Lake Tahoe and Its Upland Watershed. In D. D. Murphy and C. M. Knopp (eds.), *The Lake Tahoe Watershed Assessment*. U.S. Forest Service; Tahoe Regional Planning Agency; University of California, Davis; University of Nevada Reno; and Desert Research Institute.

River Run Consulting. 2006 (March 6). Upper Truckee River Restoration Project, California Department of Parks and Recreation, Riparian Ecosystem Restoration Feasibility Report.

Rowe, T. G., and K. K. Allander. 2000. *Surface- and Ground-Water Characteristics in the Upper Truckee River and Trout Creek Watersheds, South Lake Tahoe, California and Nevada, July–December 1996.* U.S. Geological Survey Water-Resources Investigations Report 00-4001.

Rowe, T. G., D. K. Saleh, S. A. Watkins, and C. R. Kratzer. 2002. *Streamflow and Water-Quality Data for Selected Watersheds in the Lake Tahoe Basin, California and Nevada, through September 1998.* U.S. Geological Survey Water Resources Investigations Report 02-4030. Carson City, NV.

Saucedo, G. J. 2005. Geologic Map of the Lake Tahoe Basin, California and Nevada. California Geological Survey Regional Geologic Map Series Map No. 4, 1:100,000 scale.

Schladow, S. G., and S. O. Pamlarsson. 2001. *Monitoring Lake Tahoe Hydrodynamics*. Tahoe Research Group Annual Report.

Selby, M. J. 1985. *Earth's Changing Surface: An Introduction to Geomorphology.* Oxford, UK: Clarendon Press.

Shanafield, M., K. Taylor, and R. Susfalk. 2007 (April). *Spatial and Temporal Variability of Near-Shore Clarity in a Mountain Lake.* Lake Tahoe Interagency Monitoring Program presentation.

Swanson Hydrology + Geomorphology. 2004a (March). *Final Report: Upper Truckee River Upper Reach Environmental Assessment*. Santa Cruz, CA. Prepared for Tahoe Resource Conservation District, Lahontan Regional Water Quality Control Board, and U.S. Bureau of Reclamation, South Lake Tahoe, CA.

———. 2004b (October). *Amendment Report: Upper Truckee River Upper Reach Reclamation Project*. Santa Cruz, CA. Prepared for Tahoe Resource Conservation District and U.S. Bureau of Reclamation, South Lake Tahoe, CA.

Simon, A. 2006 (May). *Estimates of Fine-Sediment Loadings to Lake Tahoe from Channel and Watershed Sources*. U.S. Department of Agriculture Agricultural Research Service, National Sedimentation Laboratory Technical Report 52. Prepared for University of California, Davis; the Nevada Division of Environmental Protection; and the Lahontan Regional Water Quality Control Board.

Simon, A., E. Langendoen, R. Bingner, R. Wells, A. Heins, N. Jokay, and L. Jaramillo. 2003. *Lake Tahoe Basin Framework Implementation Study: Sediment Loadings and Channel Erosion*. U.S. Department of Agriculture Agricultural Research Service, National Sedimentation Laboratory. Prepared for U.S. Army Corps of Engineers.

Stine, S. 1994. Extreme and Persistent Drought in California and Patagonia during Mediaeval Time. *Nature* 369:546–549.

Stubblefield, A. P., M. I. Escobar, and E. W. Larsen. 2006. Retention of Suspended Sediment and Phosphorus on a Freshwater Delta, South Lake Tahoe, California. *Wetlands Ecology and Management* 14(4):287–302.

State Water Resources Control Board. 2008 (September). *Strategic Plan Update 2008–2012*.Available: <http://www.swrcb.ca.gov/water_issues/hot_topics/strategic_plan/2007update.shtml>. Last updated September 9, 2008. Accessed October 15, 2008.

Swift, T. J., J. E. Reuter, J. Coker, G. Schladow, and C. R. Goldman. 2000. *Lake Tahoe Optical Model*. University of California, Davis Tahoe Research Group 2000Annual Report.

SWRCB. *See* State Water Resources Control Board.

Tahoe-Baikal Institute. 2008 (June). Development and Demonstration of a Field Method for Assessing the Algal Productivity of Lake Tahoe Tributaries: a water quality investigation of selected lake Tahoe Tributaries. Project Activity report by Gary Litton, Project Leader. Downloaded from: <http://www.tahoebaikal.org>.

Tahoe Regional Planning Agency. 1981. *Volume I: Water Quality Management Plan*. Available: <http://www.trpa.org/documents/docdwnlds/208_Vol_I.pdf>. Accessed August 15, 2008.

———. 1986. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>. Accessed October 9, 2008.

———. 2002a (July 5). Final Draft of the 2001 Threshold Evaluation Report.

———. 2002b. *Tahoe Keys Marina Master Plan*. Adopted by TRPA Governing Board June 2001. TRPA Adopting Ordinance Number 2001-12. Amendment Number 1, May 22, 2002 (Ordinance 2002-12).

———. 2002c. Lake Tahoe and Truckee Watershed Annual Snapshot Day Data and Summaries: 2001, 2002, 2003, 2004, 2005. Downloaded from: <http://www.tiims.org/Science-Research/TIIMS-Toolbox/TIIMS-Metadata-Explorer.aspx>.

———. 2004. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by the Governing Board on September 17, 1986; updated December 2004. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>. Accessed September 23, 2008.

———. 2007a (September). *2006 Threshold Evaluation Report*. Available: <http://www.trpa.org/default.aspx?tabindex=1&tabid=174>. Accessed August 2008.

———. 2007b. *Pathway 2007 Partner Agencies*. Available: <http://www.pathway2007.org/partners.html>. Last updated 2007. Accessed June 2008.

Taylor, Jennifer. Assistant engineer. City of South Lake Tahoe, South Lake Tahoe, CA. April 12, 2010 —e-mail message to Danielle Hughes, including attachment of unpublished turbidity monitoring data from the 2008 construction period on the Upper Truckee River reaches 3 and 4 restoration project.

Taylor, K. 2002 (March). *Investigation of Near Shore Turbidity at Lake Tahoe*. Prepared for Lahontan Regional Water Quality Control Board and Nevada Division of State Lands.

Taylor, K., R. Susfalk, M. Shanafield, and G. Schladow. 2004. *Near-Shore Clarity at Lake Tahoe: Status and Causes of Reduction*. Prepared for Lahontan Regional Water Quality Control Board, Nevada Division of State Lands, Tahoe Regional Planning Agency, and Desert Research Institute. December 2003.

Tetra Tech. 2007 (February). *Watershed Hydrologic Modeling and Sediment and Nutrient Loading Estimation for the Lake Tahoe Total Maximum Daily Load*. Revised. Prepared for Lahontan Regional Water Quality Control Board and University of California, Davis.

TRPA. *See* Tahoe Regional Planning Agency.

Tyler, Tobi L. Water resource control engineer. Lahontan Regional Water Quality Control Board, South Lake Tahoe, California. February 27, 2008—personal communication. U.S. Army Corps of Engineers. 2003 (October). Lake Tahoe Basin Framework Study - Groundwater Evaluation, Lake Tahoe Basin, California and Nevada. Final. Sacramento, CA.

U.S. Geological Survey. 2005. USGS Techniques of Water-Resources Investigations (TWRI) Book 9:Handbooks for Water-Resources Investigations, Section A: National Field Manual for the Collection of Water-Quality Data, Chapter A6 "Field Measurements", Section 6.7 *'Turbidity*. Prepared by Chauncey W. Anderson.

Winter, S. M. 2003. Sediment Retention on a Deltaic Floodplain in Response to Climate and Land-Use Changes. Master's thesis in hydrologic sciences, University of California, Davis. Davis, CA.

7.12 SECTION 3.10, "LAND USE"

Bailey, R. 1974. *Land-Capability Classification of the Lake Tahoe Basin, California-Nevada: A Guide to Planning.* U.S. Forest Service, in cooperation with the Tahoe Regional Planning Agency. South Lake Tahoe, CA.

City of South Lake Tahoe. 2011. *2030 General Plan, City of South Lake Tahoe*. City Planning Division, Public Services Department. South Lake Tahoe, CA.

———. 2007 (July). *Lake Tahoe Airport Comprehensive Land Use Plan*. South Lake Tahoe, CA. Prepared by J. G. Brand and R. D. French, South Lake Tahoe, CA.

Conservancy. *See* California Tahoe Conservancy.

CSLT. *See* City of South Lake Tahoe.

El Dorado County. 2004 (July). *El Dorado County General Plan*. Placerville, CA.

Pavlik, B., D. Murphy, and Tahoe Yellow Cress Technical Advisory Group. 2002 (August). Conservation Strategy for Tahoe Yellow Cress (*Rorippa subumbellata*).

Pavlik, Murphy, and TYCTAG. *See* Pavlik, B., D. Murphy, and Tahoe Yellow Cress Technical Advisory Group.

———. 1999. Lake Tahoe Shorezone Ordinance Amendments Draft EIS.

———. 2004. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by Governing Board on September 17, 1986; updated December 2004. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>.

———. 2005a. *TRPA Plan Area Statements 100 Truckee Marsh*. Available: <http://www.trpa.org/default.aspx?tabindex=5&tabid=204>. Accessed April, 12, 2012.

———. 2005b. *TRPA Plan Area Statements 99 Al Tahoe*. Available: <http://www.trpa.org/default.aspx?tabindex=5&tabid=204>. Accessed April, 12, 2012.

———. 2005c. *TRPA Plan Area Statements 102 Tahoe Keys*. Available: <http://www.trpa.org/default.aspx?tabindex=5&tabid=204>. Accessed April, 12, 2012.

———. 2005d. *TRPA Plan Area Statements 103 Sierra Tract-Commercial*. Available: <http://www.trpa.org/default.aspx?tabindex=5&tabid=204>. Accessed April, 12, 2012.

———. 2005e. *TRPA Plan Area Statements 104 Highland Woods*. Available: <http://www.trpa.org/default.aspx?tabindex=5&tabid=204>. Accessed April, 12, 2012.

———. 2005f. *TRPA Plan Area Statements 105 Sierra Tract*. Available: <http://www.trpa.org/documents/docdwnlds/PAS/105.pdf>. Accessed April, 12, 2012.

———. 2005g. *TRPA Plan Area Statements 111 Tahoe Island*. Available: <http://www.trpa.org/documents/docdwnlds/PAS/111.pdf>. Accessed April, 12, 2012.

———. 2007 (September). *2006 Threshold Evaluation Report*. Stateline, NV.

———. 2010 (December 16). Shorezone Decision e-mail from Jeff Cowen of TRPA to Mike Elam of TRPA.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

7.13 SECTION 3.11, "NOISE"

California Department of Transportation. 1998 (October). *Traffic Noise Analysis Protocol: Technical Noise Supplement*. Sacramento, CA.

———. 2002 (February 20). Transportation Related Earthborne Vibrations. Sacramento, CA.

California Governor's Office of Planning and Research. 2003. *General Plan Guidelines*. Sacramento, CA.

Caltrans. *See* California Department of Transportation.

Egan, M. D. 1988. *Architectural Acoustics*. McGraw-Hill. New York, NY.

El Dorado County. 1988. Chapter 9.16, Noise, of the El Dorado County Code of Ordinances. Placerville, CA.

———. 2004. Public Health, Safety, and Noise Element of the *El Dorado County General Plan*. Originally adopted July 19, 2004. Placerville, CA.

Federal Highway Administration. 2006 (January). Roadway Construction Noise Model Version 1.0 (FHWA RCNM V. 1.0). Washington, DC.

Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment*. Washington, DC.

FHWA. *See* Federal Highway Administration.

FTA. *See* Federal Transit Administration.

Lipscomb, D. M., and A. C. Taylor Jr. 1978. *Noise Control Handbook of Principles and Practices*. Van Nostrand Reinhold Company. New York, NY.

OPR. *See* California Governor's Office of Planning and Research.

Paul S. Veneklasen & Associates. 1973. *Noise Insulation Problems in Buildings.* Cited in Caltrans 2002.

Tahoe Regional Planning Agency. 2002 (December). *2001 Threshold Evaluation Report*. Stateline, NV.

———. 2007a (September 26). Governing Board Meeting Notes. Stateline, NV.

———. 2007b (September). *2006 Threshold Evaluation Report.* Stateline, NV.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

7.14 SECTION 3.12, "PUBLIC SERVICES"

City of South Lake Tahoe. 1999. *General Plan.* As amended through September 16, 2003. South Lake Tahoe, CA.

———. 2008. General Plan Update Website. Available: <http://sltgpu.com/overview.html#time>. Accessed November 17, 2008.

CSLT. See City of South Lake Tahoe.

Daniels, Terry. Police chief. South Lake Tahoe Police Department, City of South Lake Tahoe, CA. October 16, 2007—telephone conversation and e-mail communication with Burke Lucy of EDAW (now AECOM) regarding police services.

Ekey, Dave. Operations manager. High Sierra Patrol, Carson City, NV. January 8, 2008—telephone conversation with Burke Lucy of EDAW (now AECOM) regarding High Sierra Patrol response times.

Gerat, Robert. Supervising animal control officer. El Dorado County Animal Services, Placerville, CA. October 16, 2007—telephone conversation and e-mail communication with Burke Lucy of EDAW (now AECOM) regarding animal control services.

Gigliotti, Lorenzo. Fire chief. South Lake Tahoe Fire Department, City of South Lake Tahoe, CA. October 9, 2007—e-mail communication with Burke Lucy of EDAW (now AECOM) regarding fire services.

Jones & Stokes, Fire Program Solutions, and M. A. Finney. 1999 (November). *Wildland Fire Risk Assessment for the Lake Tahoe Region.* Sacramento, CA; Estacada, OR; and Missoula, MT. Prepared for U.S. Forest Service, Lake Tahoe Basin Management Unit.

Mintier Harnish, PMC, LSC Transportation, JC Brennan, and Ambient. 2008. *City of South Lake Tahoe General Plan Update: Issues and Opportunities Report*. Public Review Draft October 21, 2008. Available: <http://sltgpu.com/pdf/SLTGPU_I&O_Report.pdf>. Accessed November 17, 2008.

Roll, Stuart. Urban Land Management Program assistant. California Tahoe Conservancy, South Lake Tahoe, CA. October 18, 2007—telephone conversation and e-mail communication with Burke Lucy of EDAW (now AECOM) regarding contracted security and animal control services.

Tahoe Regional Planning Agency. 2004 (November). *Community Wildfire Protection Plan for the California Portion of the Lake Tahoe Basin*. Prepared by C. G. Celio & Sons Co., Markleeville, CA; Steve Holl Consulting, Folsom, CA; and Wildland Rx, Camino, CA.

———. 2006. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by Governing Board on September 17, 1986. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>. Last updated October 25, 2006.

———. 2007 (January). *Fuel Reduction and Forest Restoration Plan for the Lake Tahoe Basin Wildland Urban Interface*. Prepared by Steve Holl Consulting, Folsom, CA, and Wildland Rx, Camino, CA.

———. 2011 (November 15). TRPA Code of Ordinances. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

Zachau, Ray. Fire marshal. South Lake Tahoe Fire Department, City of South Lake Tahoe, CA. October 31, 2007—telephone conversation with Burke Lucy of EDAW (now AECOM) regarding restrictions for proposed structures.

7.15 SECTION 3.13, "RECREATION"

Conservancy. *See* California Tahoe Conservancy.

El Dorado County. 2004. *El Dorado County General Plan*. Adopted July 19, 2004. El Dorado County Board of Supervisors. Placerville, CA.

El Dorado National Forest. 2006. El Dorado National Forest Website. Available: <http://www.fs.fed.us/r5/eldorado>. Accessed October 10, 2006.

Rozance, M. A. 2007. Summary of Upper Truckee Marsh Land Steward Findings 2003, 2004, 2005, and 2007. Prepared for the California Tahoe Conservancy.

Shaw, Melissa. Recreation program manager. Tahoe Regional Planning Agency, Stateline, NV. January 8, 2008—personal communication on the status of recreation persons at one time (PAOT) allocations as they apply to visitor information centers and the remaining pool of summer day-use PAOTs; telephone conversation with Gretchen Eichar of EDAW (now AECOM).

Tahoe Regional Planning Agency. 2002a. *Plan Area Statement, Tahoe Keys—102*. Amended May 22, 2002.

———. 2002b. Plan Area Statement, Tahoe Island—111. Amended May 22, 2002.

———. 2002c. *Tahoe Keys Marina Master Plan*. Adopted 2001. Amendment Number 1, May 22, 2002. Stateline, NV.

———. 2003 (November). Tahoe Regional Planning Agency, Lake Tahoe Regional Bicycle and Pedestrian Master Plan. Final report.

———. 2004a. Tahoe Regional Planning Agency, Regional Plan for the Lake Tahoe Basin: Goals and Policies. Adopted September 17, 1986. Last updated December 7, 2004.

———. 2004b. *Plan Area Statement, Al Tahoe—099*. Amended April 28, 2004.

———. 2004c. Plan Area Statement, Sierra Tract–Commercial—103. Amended May 26, 2004.

———. 2004d. Plan Area Statement, Highland Woods—104. Amended May 26, 2004.

———. 2005. Plan Area Statement, Truckee Marsh—100. Amended July 27, 2005.

———. 2007a. *Regional Plan Update Information: Pathway 2007*. Available: <http://www.trpa.org/default.aspx?tabindex=10&tabid=130>. Accessed November 2007.

———. 2007b (September). 2006 Threshold Evaluation Report. Chapter 10. Stateline, NV.

———. 2010. Lake Tahoe Bicycle and Pedestrian Plan. Available at <http://www.tahoempo.org/documents/bpp/Chapters/3Sections_1_to_10.pdf>. Accessed on October 16, 2012.

Tahoe Rim Trail Association. 2006. Tahoe Rim Trail Association Website. Available: <http://www.tahoerimtrail.org/index.html>. Accessed October 10, 2006.

7.16 SECTION 3.14, "SCENIC RESOURCES"

California Department of Transportation. 2008 (May 19). Scenic Highway Program: Eligible (E) and Officially Designated (OD) Routes. Available: <http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm>. Last updated May 19, 2008. Accessed November 3, 2008.

Caltrans. *See* California Department of Transportation.

City of South Lake Tahoe. 1999. *General Plan.* As amended through September 16, 2003. South Lake Tahoe, CA.

CSLT. *See* City of South Lake Tahoe.

El Dorado County. 2004. *El Dorado County General Plan.* Adopted July 19, 2004. El Dorado County Board of Supervisors. Placerville, CA.

Tahoe Regional Planning Agency. 1986. *Plan Area Statement 100 (Truckee Marsh).* Stateline, NV.

———. 1989a (September). Regional Plan for Lake Tahoe Basin: Scenic Quality Improvement Program and Technical Appendices. Stateline, NV.

———. 1989b (September). Regional Plan for Lake Tahoe Basin: Design Review Guidelines. Stateline, NV.

———. 1993 (November). *Scenic Resource Evaluation.* Stateline, NV. Prepared by Wagstaff and Brady, Berkeley, CA.

———. 1997 (January). Draft Environmental Improvement Program for the Lake Tahoe Region. Stateline, NV.

———. 1998 (May). Regional Plan for the Lake Tahoe Basin Appendix 8-1 Travel Route Ratings. Stateline, NV.

———. 2001 (April). *Environmental Improvement Program*. Stateline, NV.

———. 2002 (December). *2001 Threshold Evaluation Report*. Stateline, NV.

———. 2004. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by the Governing Board on September 17, 1986; updated December 2004. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>.

7.17 SECTION 3.15, "SOCIOECONOMICS, POPULATION AND HOUSING, AND ENVIRONMENTAL JUSTICE"

Cal/EPA. *See* California Environmental Protection Agency.

California Department of Finance. 2008a. E-1 City/County Population Estimates, 2008. Available: <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/ReportsPapers.php> Accessed September 2008.

———. 2008b. E-5 City/County Population and Housing Estimates, 1-1-08. Available: <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/ReportsPapers.php>. Accessed September 2008.

California Department of Housing and Community Development. 2000 (May 22). *Raising the Roof—California Housing Development Projections and Constraints 1997–2020.* Sacramento, CA.

California Environmental Protection Agency. 2004 (August). Inter-Agency Environmental Justice Strategy. Available: <http://www.calepa.ca.gov/EnvJustice/Documents/2004/Strategy/Final.pdf>. Accessed September 2008.

CEQ. *See* Council on Environmental Quality.

City of South Lake Tahoe. 2008a (June). *City of South Lake Tahoe General Plan Background Report.* Public Review Draft. Mintier & Associates, Pacific Municipal Consultants, LSC Transportation Consultants, JC Brennan, and Ambient. Available: <http://sltgpu.com/index.html>. Accessed September 2008.

———. 2008b (March). *City of South Lake Tahoe Housing Element.* Public Review Draft. Prepared by Mintier & Associates. Available: <http://sltgpu.com/pdf/SLT_HE.pdf>. Accessed September 2008.

Council on Environmental Quality. 1997 (December). Environmental Justice Guidance under the National Environmental Policy Act. Available: <http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_ceq1297.pdf>. Accessed September 2008.

CSLT. *See* City of South Lake Tahoe.

DOF. *See* California Department of Finance.

EPA. *See* U.S. Environmental Protection Agency.

HCD. *See* California Department of Housing and Community Development.

NEPAnet. 2008 (September). Regulations for Implementing NEPA from CEQ. Available: <http://ceq.hss.doe.gov/nepa/nepanet.htm>. Accessed September 2008.

Tahoe Regional Planning Agency. 1980 (December). *Compact*. Stateline, NV. Available: <http://www.trpa.org/documents/about_trpa/Bistate_Compact.pdf>. Accessed September 2008.

———. 1987 (September). *Regional Plan for the Lake Tahoe Basin.* Goals and Policies. As amended October 25, 2004.

———. 2002 (July). *2001 Threshold Evaluation.* Chapter 11—Economics. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Census Bureau. 2000. American FactFinder. South Lake Tahoe and El Dorado County, California. Census 2000 Demographic Profile. Available: <http://factfinder.census.gov/home/saff/main.html?_lang=en>. Accessed September 2008.

U.S. Environmental Protection Agency. 1998 (April). *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis.* Available: <http://www.epa.gov/compliance/resources/policies/ej/ej_guidance_nepa_epa0498.pdf>. Accessed September 2008.

7.18 SECTION 3.16, "TRANSPORTATION, PARKING, AND CIRCULATION"

California Department of Transportation. 2006 (May). Standard Specifications. Sacramento, CA.

California Tahoe Conservancy. 2005. *Recreation and Access 2004–2005*. Unpublished data on file at California Tahoe Conservancy, South Lake Tahoe, CA.

Caltrans. *See* California Department of Transportation.

Conservancy. *See* California Tahoe Conservancy.

Fox, K. 2006 (August 18). Ferry Idea under Study. *Tahoe Daily Tribune*. Available: <http://www.tahoedailytribune.com/article/20060818/NEWS/108180058>. Accessed December 8, 2009.

Lewandowsky, Adam. Wildlife program coordinator. California Tahoe Conservancy, South Lake Tahoe, CA. December 16, 2009—e-mail correspondence with John C. Hunter, Ph.D., project manager at EDAW (now AECOM), regarding existing and proposed parking capacity at Tahoe Keys Marina and the forthcoming joint-use agreement for the property exchange from the California Tahoe Conservancy to the Tahoe Keys Marina.

McCarthy, K. 2004. Laws, Regulations, and Policies on Placing Utilities in State Highway Rights-of-Way. (2004-R-0161.) March 17. Available: <http://www.cga.ct.gov/2004/rpt/2004-R-0161.htm>. Accessed March 14, 2008.

Rozance, M. A. 2007a. 2007 *Land Steward Report*. California Tahoe Conservancy, South Lake Tahoe, CA.

———. 2007b. *Summary of Upper Truckee Marsh Land Steward Findings 2003, 2004, 2005, and 2007*. California Tahoe Conservancy, South Lake Tahoe, CA.

Tahoe Metropolitan Planning Organization and Tahoe Regional Planning Agency. 2008 (August 27). *Lake Tahoe Regional Transportation Plan – Mobility 2030*. Stateline, NV.

Tahoe Metropolitan Planning Organization and TRPA. *See* Tahoe Metropolitan Planning Organization and Tahoe Regional Planning Agency.

Tahoe Regional Planning Agency. 2002. *TRPA Thresholds Evaluation Report*. Stateline, NV.

———. 2007 (April). Draft TRPA Thresholds Evaluation Report. Stateline, NV.

Transportation Research Board. 1994. (January). *Special Report 209: Highway Capacity Manual, 3rd Edition*. Washington, DC.

———. 2000. *Highway Capacity Manual.* Washington, DC.

Tahoe Transportation District. 2012. BlueGO Information Page Available: <http://www.tahoetransportation.org/transit/bluego>. Accessed January 10, 2013.

TRB. *See* Transportation Research Board.

TRPA. *See* Tahoe Regional Planning Agency.

7.19 SECTION 3.17, "UTILITIES"

City of South Lake Tahoe. 2012. *South Lake Tahoe Municipal Code*. Available: <http://www.codepublishing.com/ca/southlaketahoe/>. Accessed in April 2012.

Clements, C. D., D. N. Harmon, and J. A. Young. 2007 (February 12). Reclamation Efforts at the Lockwood Landfill Station [abstracts]. Society for Range Management Meeting, February 9–16, 2007, Reno, NV.

CSLT. See City of South Lake Tahoe.

Lear, Jeanne. South Tahoe Refuse and Recycling Company, South Lake Tahoe, CA. April 9, 2008—personal communication with Mike Rudd of ENTRIX regarding refuse collection in the study area.

Nevada Small Business Development Center. 2011 (September). *Business Environmental Program Industrial Solid Waste: Industrial Use of Lockwood Regional Landfill.*

NSBDC. *See* Nevada Small Business Development Center.

South Tahoe Public Utility District. 2013. District Information. Available: <http://www.stpud.us/districtinfo.html>. Accessed April 2013.

STPUD. *See* South Tahoe Public Utility District.

South Tahoe Refuse Company, Inc. 2013. Available: <http://www.southtahoerefuse.com/> Accessed January 21, 2013.

Tahoe Regional Planning Agency. 2004. *Regional Plan for the Lake Tahoe Basin: Goals and Policies*. Adopted by the Governing Board on September 17, 1986; updated December 2004. Stateline, NV. Available: <http://www.trpa.org/documents/docdwnlds/goals.pdf>. Accessed September 23, 2008.

———. 2007. *Regional Plan Update Information: Pathway 2007*. Available: <http://www.trpa.org/default.aspx?tabindex=10&tabid=130>. Accessed January 3, 2008.

TRPA. *See* Tahoe Regional Planning Agency.

7.20 SECTION 3.18, "CUMULATIVE IMPACTS"

Applied Geographic Solutions. 2007. *City of South Lake Tahoe Demographic Report*. Thousand Oaks, CA. Prepared for City of South Lake Tahoe, South Lake Tahoe, CA. Available:

Barbour, M. G., E. Kelly, P. Maloney, D. Rizzo, E. Royce, and J. Fites-Kaufman. 2002. Present and Past Old-Growth Forests of the Lake Tahoe Basin, California, Sierra Nevada. *Journal of Vegetation Science* 13:461–472.

CALFIRE. *See* California Department of Forestry and Fire Protection.

California Department of Forestry and Fire Protection. 2002. *Multi-Source Land Cover Data (v02_2)*. Sacramento, CA. Available: <http://frap.cdf.ca.gov/data/frapgisdata/>. Accessed May 6, 2008.

California Department of Parks and Recreation, Sierra District, and U.S. Bureau of Reclamation. 2007. *Riparian Hardwoods Restoration and Enhancement: Burton Creek State Park, D. L. Bliss State Park, Ed Z'berg-Sugar Pine Point State Park, Ward Creek Unit, and Washoe Meadows State Park, Final Initial Study/Environmental Assessment*. Tahoe City and Sacramento, CA.

California Department of Transportation. 2007. *El Dorado 50, Segment 2 – Lake Tahoe Airport to U.S. 50/SR 89 Junction Water Quality Improvement Project Initial Study with Proposed Negative Declaration*. District 3 – ED – 50 PM 73.7 / 75.4, 03-1A7320. Sacramento, CA.

California Interagency Watershed Mapping Committee. 2004. *California Interagency Watershed Map of 1999 (CalWater 2.2.1)*. Available: <http://gis.ca.gov/BrowseCatalog.epl>. Accessed May 6, 2008.

California Tahoe Conservancy and California Department of General Services. 2003. *Upper Truckee River and Marsh Restoration Project Processes and Functions of the Upper Truckee Marsh, South Lake Tahoe, California*. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2005 (September). *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report.* Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2007a (October). *Fish Distribution and Abundance Report*. Prepared for Sunset Stables and Resource Management Plan for the California Tahoe Conservancy by ENTRIX, Sacramento, CA.

———. 2007b (October). *Western Pearlshell Mussel Report.* Prepared for Sunset Stables and Resource Management Plan for the California Tahoe Conservancy by ENTRIX, Sacramento, CA.

———. 2008a. *Final Alternatives Evaluation Memorandum for the Sunset Stables Restoration and Resource Management Plan Project*. Sacramento, CA. Prepared by ENTRIX, South Lake Tahoe, CA.

———. 2008b (February). *Sunset Stables Restoration & Resource Management Project Draft: Alternatives Evaluation Memorandum*. Prepared by ENTRIX, South Lake Tahoe, CA.

California Water Boards and NDEP. *See* California Water Boards and Nevada Division of Environmental Protection.

California Water Boards and Nevada Division of Environmental Protection. 2008 (September). *Lake Tahoe TMDL Pollutant Reduction Opportunity Report.*

Caltrans. *See* California Department of Transportation.

Camp, Dresser & McKee. 2007. *Preliminary Wildlife Hazard Assessment, Lake Tahoe Airport, South Lake Tahoe, California*. Truckee, CA.

Carroll, Scott. California Tahoe Conservancy, South Lake Tahoe, CA. June 10, 2007—comment on draft of cumulative effects analysis, in summary of comments provided in e-mail to John Hunter, ecologist, EDAW (now AECOM), Sacramento, CA; June 13, 2008—information on Upper Truckee River Middle Reaches 1 and 2 stream restoration project in e-mail to John Hunter, ecologist, EDAW (now AECOM), Sacramento, CA.

CDM. *See* Camp, Dresser & McKee.

CEQ. *See* Council on Environmental Quality.

City of South Lake Tahoe. 2003. *1999 General Plan: City of South Lake Tahoe*. Amended September 16, 2003. City Planning Division, Public Works Department. South Lake Tahoe, CA.

———. 2006 (July). *Upper Truckee River Middle Reach Restoration Project, Reaches 3 and 4: Alternatives Evaluation Memorandum*. Prepared by ENTRIX, Sacramento, CA.

———. 2007 (July). *Lake Tahoe Airport Comprehensive Land Use Plan*. South Lake Tahoe, CA. Prepared by J. G. Brand and R. D. French, South Lake Tahoe, CA.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Council on Environmental Quality. 1997. *Considering Cumulative Effects under the National Environmental Policy Act*. Executive Office of the President. Washington, DC.

———. 2005. *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*. Environmental Statement Memorandum No. ESM05-2. Executive Office of the President. Washington, DC.

CSLT. *See* City of South Lake Tahoe.

El Dorado County Department of Transportation. 2006. *Final Initial Study/Mitigated Negative Declaration for Angora 3 Erosion Control Project and Fisheries Enhancement Project*. State Clearinghouse #2005122039. Placerville, CA.

El Dorado County DOT. *See* El Dorado County Department of Transportation.

Ferry, Brendan. Senior planner. El Dorado County Department of Transportation, South Lake Tahoe, CA. August 29, 2007—e-mail to Gretchen Eichar, environmental planner, EDAW (now AECOM).

Herbst, D. B. 2009. *Trout Creek Restoration Monitoring: Changing Benthic Invertebrate Indicators in a Reconstructed Channel*. Sierra Nevada Aquatic Research Laboratory - University of California. Mammoth Lakes, CA. Available: <http://www.waterboards.ca.gov/lahontan/water_issues/programs/swamp/docs/herbst_troutcreek092009.pdf>. Accessed January 31, 2011.

Horvath, Mary. Professional engineer. Wood Rogers, Reno NV. May 13, 2008—telephone conversation with Danielle Hughes, hydrologist, EDAW (now AECOM).

Howard, K. A., and K. M. Cuffey. 2003. Freshwater Mussels in a California North Coast Range River: Occurrence, Distribution, and Controls. *Journal of the North American Benthological Society* 22:63–77.

Lindström, S. 1995. *Phase 1 Literature Review and Preliminary Assessment of Known and Potential Heritage Resources, Upper Truckee River Wetland Restoration Project, 400 Acres, South Lake Tahoe*. Sacramento, CA. Prepared for Global Environmental, Sacramento, CA. Report (#2861) on file at North Central Information Center, California State University, Sacramento.

———. 1996. *Phase I Addendum Archaeological Field Inventory, Upper Truckee River Wetlands Restoration Project, 400 Acres, South Lake Tahoe*. Sacramento, CA. Prepared for Global Environmental, Sacramento, CA. Report on file at North Central Information Center, California State University, Sacramento.

Moyle, P. B. 2002. *Inland Fishes of California, Revised and Expanded*. University of California Press. Berkeley and Los Angeles, CA.

Murphy, D. D., and C. M. Knopp (eds.). 2000. *Lake Tahoe Watershed Assessment*. General Technical Report PSW-GTR-175. Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture. Albany, CA.

Nedeau, E., A. K. Smith, and J. Stone. 2005. *Freshwater Mussels of the Pacific Northwest*. Joint Publication of the U.S. Fish and Wildlife Service, Water Tenders through King County Water Quality Fund, WA, and the Xerces Society for Invertebrate Conservation.

Reclamation. *See* U.S. Bureau of Reclamation.

Reclamation, CSLT, and TRPA. *See* U.S. Bureau of Reclamation, City of South Lake Tahoe, and Tahoe Regional Planning Agency.

Rudd, Michael, P. E. Restoration Engineering Manager. ENTRIX. December 1, 2008—e-mail communication with Virginia Mahacek of Valley & Mountain Consulting regarding the status of engineering analysis for the Upper Truckee River Restoration Project, Middle Reaches 1 and 2.

State Parks and Reclamation. *See* California Department of Parks and Recreation, Sierra District, and U.S. Bureau of Reclamation.

Strayer, D. L., J. A. Downing, W. R. Haag, T. L. King, J. B. Layzer, T. J. Newton, and S. J. Nichols. 2004. Changing Perspectives on Pearly Mussels, North America's Most Imperiled Animals. *BioScience* 54(5):429–439.

Stubblefield, A. P., M. I. Escobar, and E. W. Larsen. 2006. Retention of Suspended Sediment and Phosphorus on a Freshwater Delta, South Lake Tahoe, California. *Wetlands Ecology and Management* 14(4):287–302.

Tahoe Regional Planning Agency. 2008. Revised Notice of Preparation of a Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for the South Tahoe Greenway Shared-Use Trail Project, South Lake Tahoe, California. Stateline, NV.

TRPA. *See* Tahoe Regional Planning Agency.

U.S. Bureau of Reclamation. 2000. *Public Reviews Draft National Policy Act Handbook*. Washington, DC.

———. 2008 (January). *Truckee River Operating Agreement Final Environmental Impact Statement/Environmental Impact Report*. Prepared along with U.S. Fish and Wildlife Service, U.S. Bureau of Indian Affairs, and California Department of Water Resources.

U.S. Bureau of Reclamation, City of South Lake Tahoe, and Tahoe Regional Planning Agency. 2008. *Upper Truckee River Restoration Project, Middle Reaches 3 and 4, Joint NEPA/CEQA/TRPA Environmental Document*. Truckee, CA. Prepared for U.S. Department of Interior, Bureau of Reclamation, Sacramento, CA; City of South Lake Tahoe, South Lake Tahoe, CA; and Tahoe Regional Planning Agency, Stateline, NV. Prepared by Camp, Dresser & McKee, Truckee, CA.

U.S. Forest Service. 2007. *Schedule of Proposed Actions (SOPA) 07/01/2007 to 09/30/2007 Lake Tahoe Basin MGT Unit*. Available: <http://www.fs.fed.us/sopa/components/reports/sopa-110519-2007-07.html>. Accessed May 1, 2008.

———. 2008a. Proposed Action for the High Meadows Forest Plan Designation; Ecosystem Restoration; and Access Travel Management Project. Available: <http://www.fs.fed.us/r5/ltbmu/projects/>. Accessed May 2, 2008.

———. 2008b. Lake Tahoe Basin Management Unit, California, South Tahoe Greenway Shared-Use Trail Project. *Federal Register* 73(63):17300–17302.

U.S. Forest Service, TRPA, Nevada Tahoe Resource Team, Nevada Division of Forestry, Nevada Division of State Lands, Nevada Fire Safe Councils, California Department of Forestry and Fire Protection, California Tahoe Conservancy, California State Parks, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Tahoe-Douglas Fire Protection District, Lake Valley Fire Protection District, Meeks Bay Fire Protection District, South Lake Tahoe Fire Department, and Fallen Leaf Fire Department. 2007. *Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy*. Lake Tahoe Basin Management Unit, Forest Service, U.S. Department of Agriculture. South Lake Tahoe, CA.

USFS. *See* U.S. Forest Service.

Vail Resorts. 2007. *Heavenly Mountain Resort Master Plan Amendment EIR/EIS/EIS*. Broomfield, CO. Available: <http://www.trpa.org/default.aspx?tabindex=2&tabid=223>. Accessed May 2, 2008.

Wood Rodgers. 2007 (December 19). *Al Tahoe Formulation of Alternatives*. Memorandum to Al Tahoe TAC members from Mary Worvath, Wood Rodgers, Reno, NV.

Zhu, Y., W. C. Hinds, S. Kim, and S. Shen. 2002. Study of Ultrafine Particles Near a Major Highway with Heavy-duty Diesel Traffic. *Atmospheric Environment* 36:4323–4335.

7.21 CHAPTER 4, "OTHER REQUIRED SECTIONS"

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2007. *Upper Truckee River and Marsh Restoration Project: Tahoe Yellow Cress Management Plan*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW, South Lake Tahoe, CA, and ENTRIX, Sacramento, CA.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Tahoe Regional Planning Agency. 1982a. *Environmental Impact Statement for the Establishment of Environmental Threshold Carrying Capacities.* Stateline, NV.

———. 1982b (May). *Study Report for the Establishment of Environmental Threshold Carrying Capacities.* Stateline, NV.

———. 1996. *Draft 1996 Evaluation Report: Environmental Carrying Capacities and the Regional Plan Package for the Lake Tahoe Basin.* Stateline, NV.

———. 1998 (May). *Regional Plan for the Lake Tahoe Basin*. Appendix 8-1—Travel Route Ratings. Zephyr Cove, NV.

———. 2002 (July). *2001 Threshold Evaluation* (Draft). Available: <http://www.trpa.org/documents/docdwnlds/Historic/2001_THRESH_EVAL_7-2002.pdf>.

———. 2007 (September). *2006 Threshold Evaluation Report*. Available: <http://www.trpa.org/default.aspx?tabid=174>. Accessed June 2008.

———. 2012 (April). *2011 Threshold Evaluation* (Draft). Available: <http://www.trpa.org/documents/rp_update/dter/1_Threshold_Evaluation_Report/0_TEVAL2011_Cover_ExecSummary_TOC.pdf>. Accessed 2012.

Tracy, J. C., and A. R. Rost. 2003. *Stream Flow Conditions of Lake Tahoe Streams Based on Gaged Flows and Statistically Modeled Flow Estimates: Implications for Salmonid Fish Population Management*. Reno, NV: Desert Research Institute.

TRPA. *See* Tahoe Regional Planning Agency.

7.22 CHAPTER 5, "COMPLIANCE, CONSULTATION, AND COORDINATION"

California Department of Transportation. 2011 (October). *California Airport Land Use Planning Handbook.* Division of Aeronautics.

———. 2008 (May 19). Scenic Highway Program: Eligible (E) and Officially Designated (OD) Routes. Available: <http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm>. Last updated May 19, 2008. Accessed November 3, 2008.

California Tahoe Conservancy and California Department of General Services. 2005. *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report*. Prepared by EDAW and ENTRIX.

California Tahoe Conservancy, U.S. Bureau of Reclamation, and Tahoe Regional Planning Agency. 2007 (June). *Scoping Summary Report for the Upper Truckee River and Marsh Restoration Project Environmental Impact Report/Environmental Impact Statement/Environmental Impact Statement*. South Lake Tahoe, CA.

Caltrans. *See* California Department of Transportation.

Camp Dresser & McKee. 2007. *Draft Preliminary Wildlife Hazard Assessment, Lake Tahoe Airport.* South Lake Tahoe, CA.

CDM. *See* Camp Dresser & McKee.

City of South Lake Tahoe. 2007 (July). *Lake Tahoe Airport Comprehensive Land Use Plan.* South Lake Tahoe, CA. Prepared by J. G. Brand and R. D. French, South Lake Tahoe, CA.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Conservancy, Reclamation, and TRPA. *See* California Tahoe Conservancy, U.S. Bureau of Reclamation, and Tahoe Regional Planning Agency.

CSLT. *See* City of South Lake Tahoe.

Environmental Laboratory. 1987 (January). *Corps of Engineers Wetlands Delineation Manual*. Wetlands Research Program Technical Report Y-87-1. Vicksburg, MS: U.S. Army Corps of Engineers Waterways Experiment Station.

EPA. *See* U.S. Environmental Protection Agency.

FAA. *See* Federal Aviation Administration.

Federal Aviation Administration. 2007 (August 28). *Advisory Circular: Hazardous Wildlife Attractants on or Near Airports.* AC No. 150/5200-33B. Washington, DC: U.S. Department of Transportation.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. South Lake Tahoe, CA.

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

Lemmers, C., and M. Santora. 2012. *Basin-wide Native Non-game Fish Assessment: 2011 Annual Report.* South Lake Tahoe, CA: U.S. Forest Service, Lake Tahoe Basin Management Unit.

USACE. *See* U.S. Army Corps of Engineers.

U.S. Army Corps of Engineers. 2008. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. ERDC/EL TR-08-13. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Environmental Protection Agency. 2010. Executive Order 11988: Floodplain Management. Available: <http://www.epa.gov/owow/wetlands/regs/eo11988.html>. Accessed March 4, 2010.

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