APPENDIX L

TRPA Impact Analysis

UNITED STATES DEPARTMENT OF AGRICULTURE-FOREST SERVICE
LAKE TAHOE BASIN MANAGEMENT UNIT

DATE

Upper Truckee River Sunset Stables Watershed Restoration Project
South Lake Tahoe, CA

Aquatic and Terrestrial Species
Impact Analysis Report *for the*
Tahoe Regional Planning Agency

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Background

In order to help maintain and protect natural resources in the Lake Tahoe Basin, the Tahoe Regional Planning Compact formed the Tahoe Regional Planning Agency (TRPA) Regional Plan which created and adopted environmental threshold carrying capacities ("thresholds" or "threshold standards") in two documents for fisheries and wildlife resources. These documents, the Goals and Policies (TRPA 1986) and the Code of Ordinances and Rules of Procedure (TRPA 1987), provide guidelines for threshold standards (TRPA 2002). The Goals and Policies statements for the maintenance and enhancement of wildlife and fisheries resources are attached as **Appendix 1.**

Introduction

Please reference the Upper Truckee River Sunset Stables Watershed Restoration Project Biological Assessment/Biological Evaluation of Aquatic and Terrestrial Species for a description of the proposed action, selected alternatives, duration, and implementation date.

Impact Analysis for Wildlife Threshold Standards and Indicators (W-1, W-2)

W-1:Threshold Standard for Wildlife[1]

Standard: Provide a minimum number of population sites and disturbance zones for TRPA listed species. Perching trees and nesting sites shall not be physically disturbed, nor shall the habitat within disturbance zone be manipulated in any manner, unless needed to enhance habitat quality.

Indicator: The minimum number of population sites and disturbance zones maintained as determined by inspection by qualified experts.

Table 1. W-1 Standard Threshold for Wildlife (Special Interest Species)

Species	Population Sites[1]	Disturbance Zone (mi.)	Potential to Impact Threshold Standard? Y/N
Northern goshawk (*Accipter gentiles*)	12	0.50	N
Osprey (*Pandion haliaetus*)	4	0.25	N
Bald eagle (winter) (*Haliaeetus leucocephalus*)	2	Mapped	N
Bald eagle (nesting)	1	0.50	N
Golden eagle (*Aquila chrysaetos*)	4	0.25	N
Peregrine falcon (*Falco peregrinus anatum*)	2	0.25	N
Waterfowl	18	Mapped	N
Mule deer (*Odocoileus hemionus*)	Critical fawning habitat	Meadows-Critical fawning habitat is mapped	N

[1]Based on the Threshold Evaluation by TRPA (2002), many of the population site goals have not been attained, and may never be realized for species like the golden eagle and peregrine falcon considering the Lake Tahoe basin has historically been considered suboptimal nesting habitat for both of these species. The northern goshawk threshold standard has a low likelihood of attainment by 2006 due to habitat fragmentation attributed to recreation encroachment nesting areas. The mule deer threshold is

[1] Under TRPA Code of Ordinances, Chapter 78-Wildlife Resources, the project biologist(s) must prepare appropriate documentation with specific recommendations for avoiding significant adverse impacts to the special interest, threatened, endangered or rare species (78.3.C).

not likely to be realized due to recreational encroachment into meadows during fawning season (TRPA 2002). You would only have a 'yes' for impacts to population sites if you are impacting a known site. Threshold Standards may not be attained basin-wide for certain populations, but that is an issue at the programmatic level, not at the project level.

All known northern goshawk, osprey, bald eagle, golden eagle, and peregrine falcon nests in the basin were mapped and the appropriate disturbance zones applied. None of these disturbance zones fell within this project's boundaries. The mapped bald eagle winter habitat and mapped waterfowl threshold sites were overlaid with this project's boundaries using ArcMap. Neither of these areas falls within this project's boundaries. According to the LTBMU mule deer habitat model (2004) there are 32,266.5 acres of high quality habitat (fawning habitat) in the basin. None of this habitat falls within this project's boundaries. Based on this analysis there are no terrestrial wildlife species to carry forward in this report.

W-2: Habitats of Special Significance

The Wildlife Threshold Standard W-2 states: A non-degradation standard shall apply to significant wildlife habitat consisting of deciduous trees, wetlands, and meadows while providing for opportunities to increase the acreage of such riparian associations.

- If these habitat features are NOT PRESENT in the proposed project, simply document that here and no further analysis is necessary.
- If habitat features are present: To meet the **W-2** Threshold Standard, review Threshold Standards SC-2 (Soil Conservation) in TRPA 2001 Threshold Evaluation (TRPA 2002). The SC-2 Threshold Standard Indicator states to preserve existing natural functioning Stream Environment Zones (SEZs) in their natural hydrological condition, restore all disturbed SEZ in undeveloped, unsubdivided lands, and restore 25% of the SEZ lands that have been identified as disturbed, developed or subdivided, too attain a 5% total increase in the naturally functioning SEZ land (TRPA 1996, 2002). You can meet the Threshold Standard by avoiding negative effects to meadows, deciduous trees, and wetlands, and if these features are already disturbed, or developed in the project, look for restoration opportunities.

Is the proposed project within a SEZ: ___Yes____ if yes, what kind of management or restoration work is proposed?

The only deciduous trees found in the basin are black cottonwood (Populus balsamifera) and quaking aspen (Populus tremuloides). There are small aspen stands on the eastern edge of this project. Removal of aspen is not planned for this project.

This is a watershed restoration project involving restoration of the stream channel and meadow system. Nearly all of the stream channel, wetlands, and meadow within the project area will be greatly disturbed during implementation. However, the project should increase the acreage and greatly improve the condition of these wetlands, the meadow and other riparian associations in the long-term. Therefore the W-2 standard is being met.

Impact Analysis for Fisheries Threshold Standards and Indicators (F1-F4)

F-1 Lake Habitat (*if project is not adjacent or connected to lakes, state that here and move to next Threshold Standard*)

Standard: Achieve the equivalent of 5,948 total acres of excellent lake fish habitat.

Indicator: Physical disturbance of rocky (spawning and feed/cover habitats) substrate (acres).

Does the proposed project have the potential to degrade fish habitat, substrate conditions (Y/N):_____No_____If yes, how and can it be mitigated? _____

This project is not adjacent or connected to lakes.

F-2 Stream Habitat

Standard: Maintain 75 miles of excellent, 105 miles of good, and 38 miles of marginal stream habitat as indicated by the Stream Habitat Quality Overlay map (1997).

Indicator: Miles of stream habitat in the various categories based on field investigations of habitat. A qualified fisheries biologist using empirical data should make determinations of stream quality.

Will proposed project impact stream habitat quality (Y/N)__Yes___if yes, how and can it be mitigated or state short-term affect(s) versus long-term benefit(s), or BMPs implementation?

Effects will be mitigated through project design features and BMPs described in the Environmental Assessment. An analysis of short term versus long term effects is presented in the Upper Truckee River Sunset Stables Restoration BE/BA document. Long-term habitat impacts are to substantially improve stream habitat within the Upper Truckee River drainage, through restoring natural geomorphic processes, and meeting TMDL requirements.

F-3 In-stream Flow (*if not within, adjacent, or connected to stream state here and move to F-4*)

Standard: Until instream flow standards are established in the Regional Plan to protect fisheries values, a non-degradation standard shall apply to instream flows.

Indicator: Instream flows evaluated by the use of an instream beneficial use assessment, such as the type established by Title 23, Section 670.6 of the California Administrative Code.

Does the proposed project include new construction or maintenance of a water diversion (Y/N)? ____No_____Potential to affect instream flows (Y/N)? _____No_____

F-4 Lahontan Cutthroat Trout[2]

Standard: It shall be the policy of the TRPA Governing Board to support, in response to justifiable evidence, state and federal efforts to reintroduce Lahontan cutthroat trout.

Indicator: (TRPA 1982a): Threshold would be achieved with the successful establishment of a Lahontan cutthroat trout population.

Are fish species present/suspected? _____No_____

Is there an adjacent Lahontan cutthroat trout population which could be affected by the project? _____Yes_____

The LCT UTR Expansion Project was initiated in 2008 and is expected to continue through 2014. The purpose of the project is to reclaim 10 miles of stream and 85 acres of small lake habitat for federally threatened LCT in the Upper Truckee River. Reclaiming aquatic habitats in the Upper Truckee River watershed is consistent with California Department of Fish and Game goals and objectives for recovering and developing waters for native salmonid fisheries. The CDFG currently works under the interagency Fishery Management Plan for Lahontan Cutthroat Trout in California and Western Nevada Waters (1986), which identifies the Upper Truckee River as a priority area in Lake Tahoe to reclaim aquatic habitats for LCT. Since the early 1990's CDFG adjusted the stocking allotments for Showers, Dardenelles, Round and Four Lakes from brook trout to LCT. Currently CDFG is drafting updated fishery management plans that will be basin-specific and identify waters which will be managed for native fish production, non-native recreational fisheries, and fishless waters intended to provide amphibian habitat. It is expected (as in the 1986 LCT management plan) that CDFG will identify waters within the proposed project area as systems that will support LCT.

Impact Summary-(to be inserted into EA/EIS if necessary)

- Lahontan cutthroat trout – The UTR Sunset Stable Restoration Project "may affect but not likely to adversely affect LCT or designated critical habitat". Informal consultation with USFWS has been initiated per Section 7 of the Endangered Species Act.

[2]Although the 1991 and 1996 Threshold Evaluations (TRPA 1991 and 1996) acknowledged a threshold policy standard for the reintroduction of Lahontan cutthroat trout, the Governing Board did not adopt it as an official threshold standard. In the Threshold Evaluation (TRPA 2002), they recommended that the TRPA Governing Board adopt the F-4 Threshold Standard and Indicator (TRPA 2002).

Literature cited

California Administrative Code, Title 23, Section 670.6

Tahoe Regional Planning Agency. 1986. Goals and Policies.

Tahoe Regional Planning Agency. 1987. Regional Plan for the Lake Tahoe Basin: Code of Ordinances, Rules of Procedures (Chapter 78 &79). Tahoe Regional Planning Agency, Zephyr Cove, NV.

Tahoe Regional Planning Agency. 2002. Tahoe Regional Planning Agency 2001. Threshold Evaluation. Chapter 6 & 7. Tahoe Regional Planning Agency, Zephyr Cove, NV.

USDA Forest Service. 2004. Mule Deer Habitat Model.

Appendix 1.

For Fisheries: There is one goal and nine policy statements relative to maintaining fisheries resources. The goal is to improve aquatic habitat essential for the growth, reproduction and perpetuation of existing and threatened fish resources in the Lake Tahoe basin (TRPA 1986). The nine policies are:

1) TRPA must consider and mitigate project impacts to fish habitat in streams and lakes;
2) Prohibit the development of blockages and other impediment to fish movement in streams;
3) Develop an in-stream maintenance program to inventory and remove stream blockages;
4) Establish boating standards to reduce associated disturbance in the shallow zone of the lake;
5) Encourage habitat improvement projects in streams and lakes'
6) Maintain and enhance in-stream flows;
7) Existing points of water diversion from streams shall be transferred to the lake, whenever feasible;
8) Support state and federal efforts to reintroduce Lahontan cutthroat trout; and
9) Control the level of Lake Tahoe to reflect season weather and runoff patterns.

For additional protection measures designed to achieve threshold standards, see TRPA Code of Ordinances (TRPA 1987), Chapter 79. The following are the 1996 Threshold Evaluation standards listed under Chapter 6 in the TRPA 2001 Threshold Evaluation (TRPA 2002).

For Wildlife: There are two goals and five policy statements relative to maintaining wildlife resources. The goals are:1) Maintain suitable habitat for all indigenous species of wildlife without preference to tame of non-game species through maintenance of habitat diversity; 2) Preserve, enhance, and, where feasible, expand habitats essential for threatened, endangered, rare, or sensitive species founding the basin. The five policies are:

1) TRPA must consider and mitigate project impacts to wildlife;
2) Protect riparian vegetation;
3) Forbid the release of non-native species;
4) Control and contain domestic animals;
5) Protect sensitive species and buffer them against conflicting land uses.

For additional protection measures designed to achieve threshold standards, see TRPA Code of Ordinances (TRPA 1987), Chapter 78. The following are the 1996 **Threshold Standards and Indictors** listed under Chapter 7 in the TRPA 2001 Threshold Evaluation (TRPA 2002).