1.0 INTRODUCTION

The Kings Beach Water Quality and Stream Environment Zone (SEZ) Improvement Project (the Project) proposed by Placer County is the subject of the environmental review provided in this document. Funding for the Project is or may be provided by grants from the California Tahoe Conservancy (Conservancy), the Tahoe Regional Planning Agency (TRPA), the United States Department of Agriculture – Forest Service (USFS), the United States Department of the Interior Bureau of Reclamation (Reclamation) and the North Lake Tahoe Resort Association (NLTRA). Because state and federal funds may be used to finance the Project, it must be reviewed for compliance with both the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Furthermore, since the Project is located in the Tahoe Basin, it is subject to the requirements of the Tahoe Regional Planning Agency (TRPA).

Although this Project is an EIP[1] project, inclusion in the EIP does not automatically constitute approval of the Project (TRPA 2001). Each EIP project or activity must be evaluated for environmental impacts. Therefore, this environmental document examines and determines the level of impact pursuant to CEQA, NEPA and the TRPA Code of Ordinances, and fulfills the following regulatory requirements:

- An Initial Study pursuant to CEQA Guidelines section 15063. The CEQA lead agency is Placer County – Department of Public Works
- An Environmental Assessment pursuant to NEPA regulations at 40 CFR 1500 through 1508. The NEPA lead agency for the water quality improvement elements located throughout the residential area of the Project is the United States Department of Agriculture – Forest Service. The NEPA lead agency for the erosion control and habitat improvement elements in the Griff Creek SEZ is the United States Department of the Interior – Bureau of Reclamation.
- An Initial Environmental Checklist (IEC) pursuant to TRPA Code of Ordinances Chapter 5 and Rules of Procedure Section 6. A TRPA initial environmental checklist for the Project is included as an appendix to this environmental document.

The analysis of the Project pursuant to CEQA has determined all of the relevant environmental issue areas (listed below) to have no impacts or less than significant impacts before or after the implementation of proposed mitigation[2]:

Aesthetics
Agricultural Resources
Air Quality & Climate Change
Biological Resources
Cultural Resources
Environmental Justice
Geology and Soils
Growth Inducing Effects
Hazards and Hazardous Materials
Hydrology and Water Quality
Indian Trust Assets
Land Use and Planning
Mineral Resources
Noise
Population and Housing
Public Services
Recreation
Transportation/Traffic
Utilities and Service Systems
Cumulative Impacts/Effects

[1] EIP = Environmental Improvement Program, a program administered by TRPA. For more information about the EIP, call TRPA or visit their website at www.trpa.org

[2] Pursuant to Section 15370 of the CEQA Guidelines, mitigation includes (a) Avoiding the impact altogether by not taking a certain action or parts of an action; (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or (e) Compensating for the impact by replacing or providing substitute resources or environments.

1.1 Purpose and Need

The purpose of the Project is to reduce fine sediment and nutrients in stormwater reaching Lake Tahoe throughout the entire Kings Beach grid, decrease stream velocities and channel erosion in the Griff Creek and Coon Street stream environment zones (SEZs), and improve fish passage and habitat in Griff Creek.

The Project is needed to improve the quality of stormwater discharging into Lake Tahoe from the Project area. The clarity of Lake Tahoe has been decreasing, partially as a result of sediment and nutrient loading from multiple sources around the lake (UC Davis et al. 2007). Fine sediment particles remain suspended in the water column, reducing light penetration and water clarity. Nutrients, particularly phosphorus and nitrogen, stimulate the production of algae, which also reduce lake clarity. Reducing erosion and runoff from exposed soils and providing more opportunities for runoff treatment before it reaches the lake, can improve the clarity of Lake Tahoe (Placer County 2006b).

Most development in the Project area occurred during the first half of the 20th century, when drainage infrastructure was designed to convey stormwater with little regard for impacts to Lake Tahoe; stormwater quality was seldom considered during design and construction. As a result, the existing drainage infrastructure within the Project area does not provide adequate treatment of runoff, increasing the potential for degradation of water quality in Lake Tahoe. The potential for high sediment loads in runoff is presented by the presence of areas of exposed soils throughout the Project area as well as eroded and degraded drainage channels. Improving the quality of runoff from the Project area into Lake Tahoe is important to the basin-wide effort to protect the lake's water clarity. The Project proposes the construction of numerous storm water conveyance and treatment improvements (including curb-and gutter construction, new and enlarged detention basins, rock- and grass-lined channels, and sediment and filter vaults) that are designed to more efficiently remove suspended sediment transported from the Project area and, ultimately, discharged to the Lake.

Past development of the Kings Beach community also impacted the natural function of Griff Creek by using culverts underneath local roadways that are too small to convey high flows. These undersized culverts do not meet applicable Caltrans and Placer County design standards and create high stream velocities that lead to channel erosion. The culverts also present barriers to migrating fish. The Project proposes to replace two of the culverts with structures to improve stream flow conveyance and fish passage. Additionally, the Project would improve stream process functions through realignment of portions of the channel and modifications of the floodplain.

1.2 Project Background

Kings Beach is located in Placer County, California, on the north shore of Lake Tahoe (Figure 1). The community has a population of about 4,000 residents (U.S. Census Bureau 2000) and is intersected by two major highways, State Route 28 and State Route 267. The Project area covers approximately 440 acres, encompassing the entire Kings Beach community and part of Griff Creek from Lake Tahoe upstream to Griff Lane (Figure 2).

The Kings Beach Community Plan (KBCP), adopted in 1996, presents a vision intended to guide community enhancement activities, which includes water quality improvements. In accordance with the KBCP, Placer County has initiated several projects in the Kings Beach area. Among those projects are the *Kings Beach Watershed Improvement Project* (EIP #15 and #733), the *Griff Creek Stream Restoration Project* (EIP #410), and the *Kings Beach Commercial Core Improvement Project* (EIP #10060). Because of overlap between the Watershed Improvement Project (WIP) and the Griff Creek project, the two were combined and are now one project: *The Kings Beach Water Quality and SEZ Improvement Project* (the Project). The Project is the subject of analysis in this environmental document.

The Project area surrounds the area evaluated in the *Kings Beach Commercial Core Improvement Project (CCIP) EA/EIR/EIS* (Placer County 2008b) (Figure 2). Some components of the WIP (e.g., water conveyance from the residential area) will connect to water quality improvement facilities evaluated in the *CCIP EA/EIR/EIS*. None of the Griff Creek improvements proposed by the Project were included in the CCIP environmental review. The previously evaluated CCIP water quality improvements are not a part of the Project but the environmental effects of implementation of these elements will be evaluated in this document in the analysis of cumulative effects.

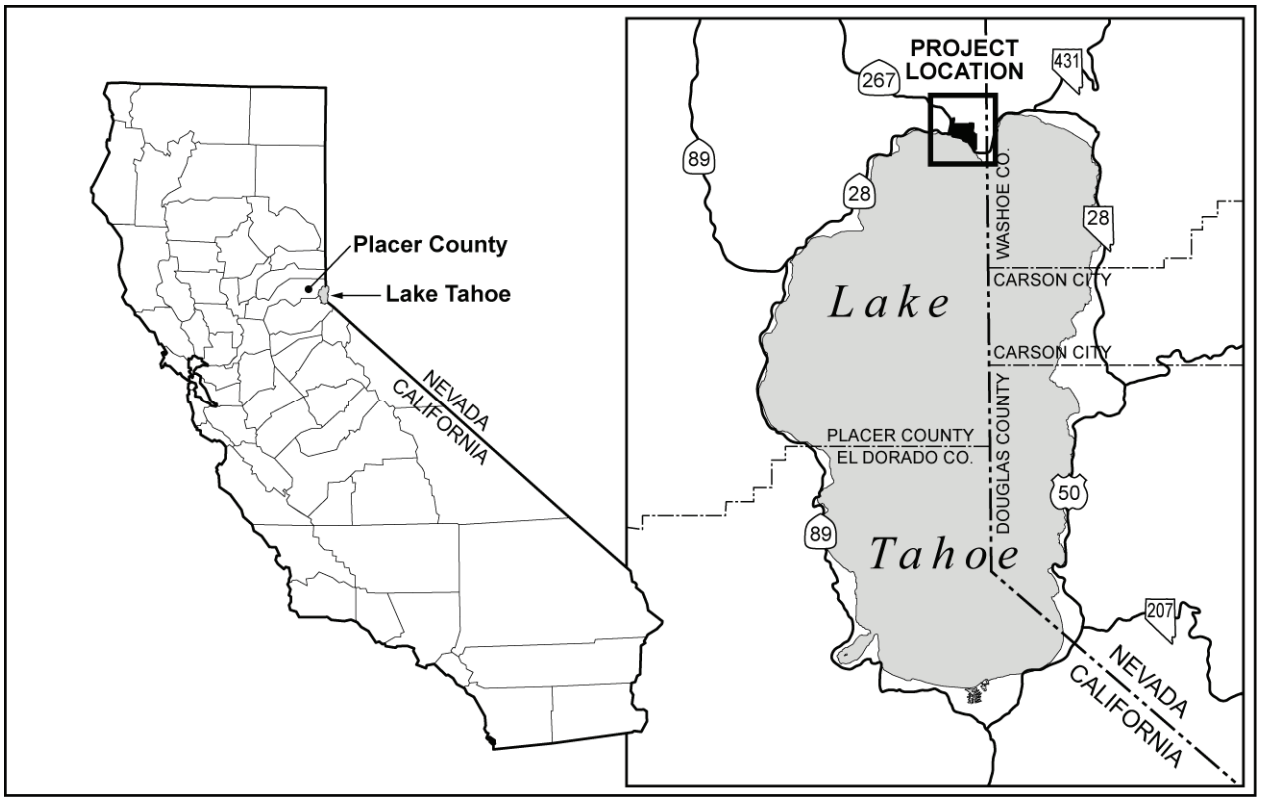

Figure 1. Project location map.

Development of the Project required several studies to collect and interpret baseline data and to identify water quality, SEZ, and fisheries problems in the Project area. The studies included the Commercial Core, the residential area surrounding the Commercial Core, and the upgradient forested areas north and east of the Project area (Figure 2). The studies were then presented in a series of memoranda and reports, incorporated herein by reference and summarized in Appendix B and C of this environmental document. They are listed below:

- *SEZ Existing Conditions and Alternatives Report,* Placer County, February 2006
- *Hydrologic Conditions Report,* Placer County, February 2006
- *SEZ Improvement Plan,* Placer County, June 2006
- *Review Alternatives Memorandum,* Placer County, June 2006
- *Evaluating Alternatives Technical Memorandum,* Placer County, November 2006
- *Project Plans for the Construction of the Kings Beach Water Quality and SEZ Improvement Project, 25% Design,* December 2007

Complete copies of the above documents are available from Placer County. Additional reports were produced for biological resources, historic/cultural resources, and hazardous materials. Those reports are provided in Appendix D, E and F.

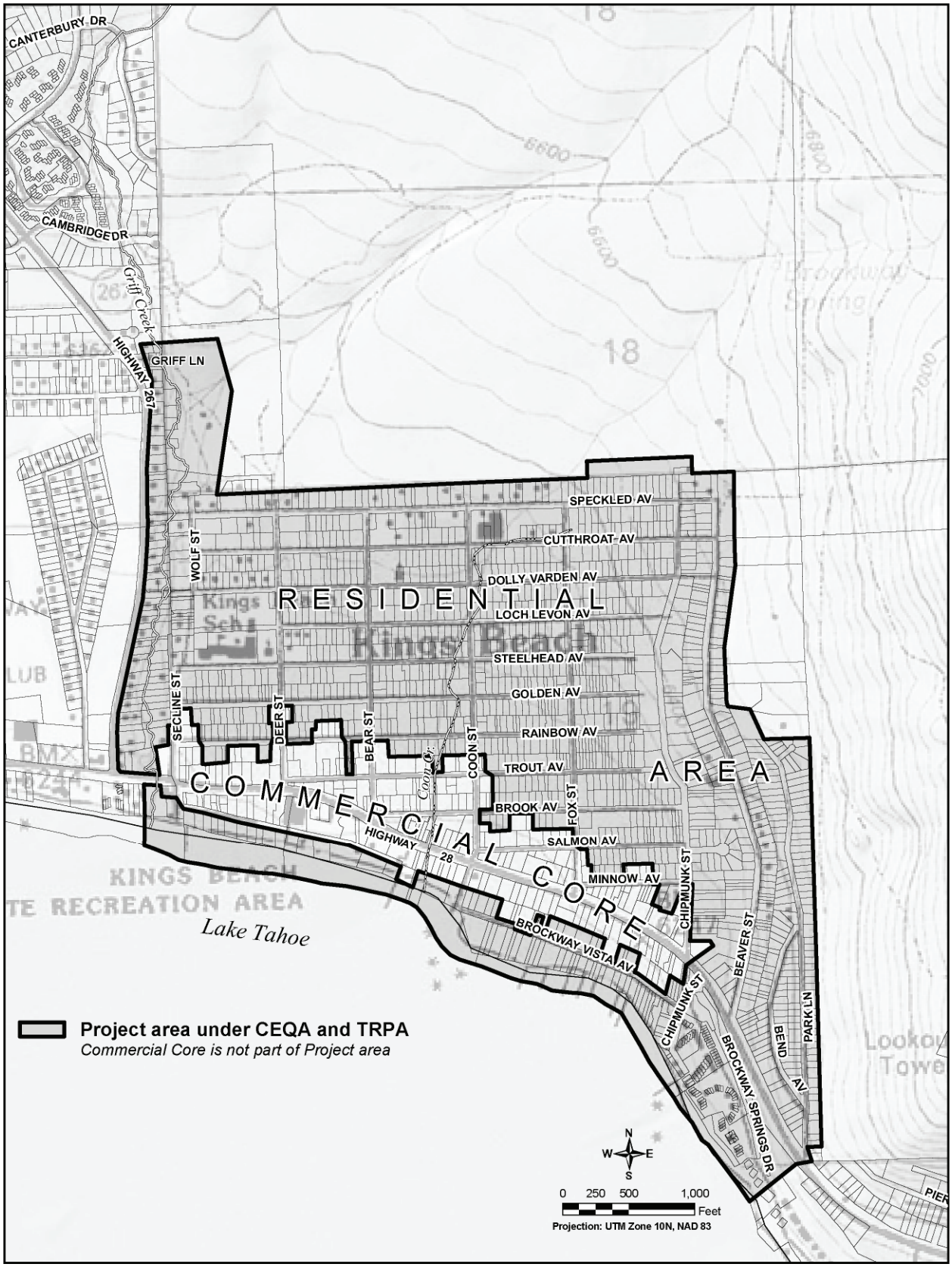

Figure 2a. Project area map.
(Sources: USGS 1992 and Placer County 2007-2008)

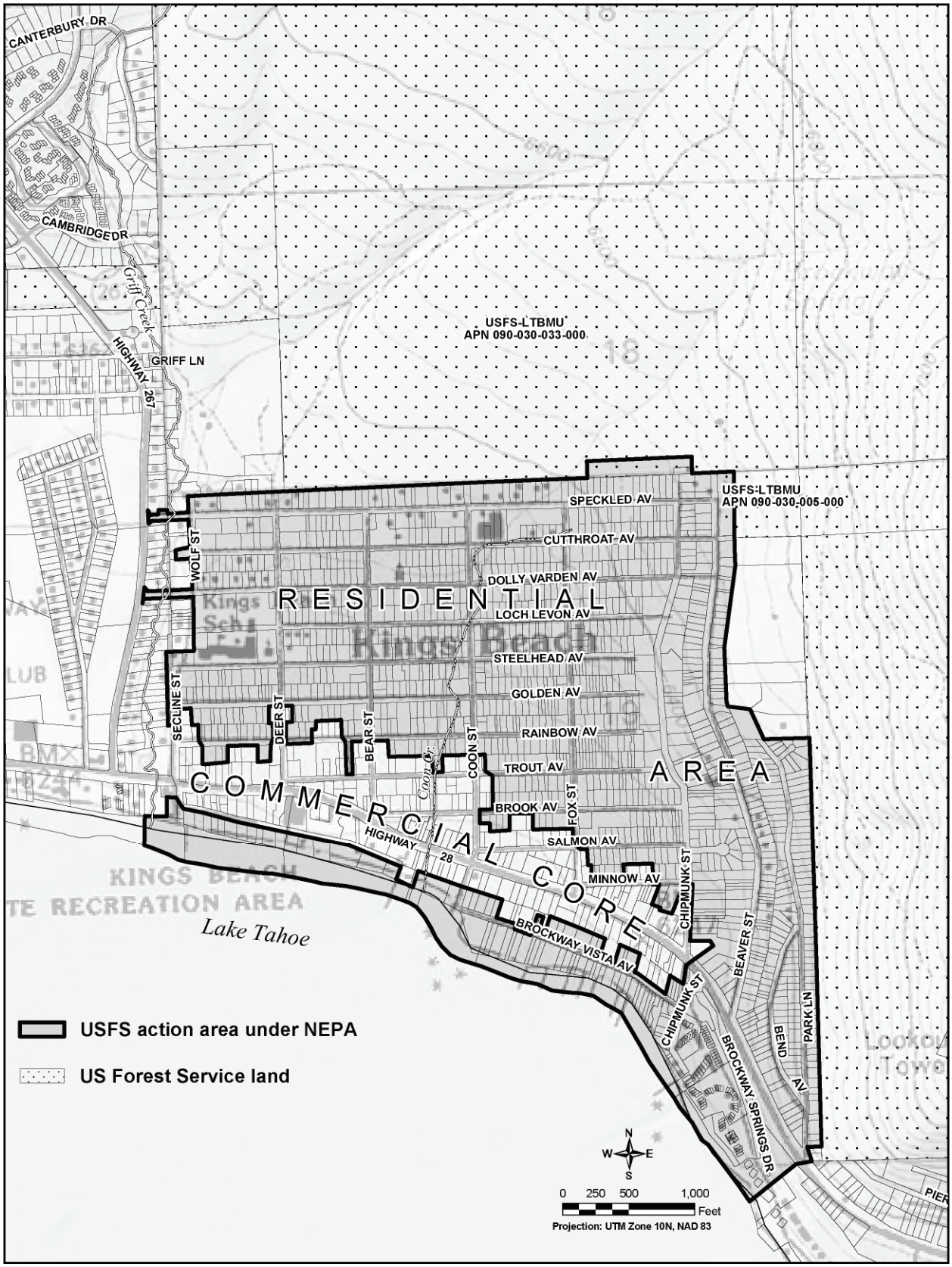

Figure 2b. US Forest Service's action area under NEPA.
(Sources: USGS 1992 and Placer County 2007-2008)

Figure 2c. Reclamation's action area under NEPA.
(Sources: USGS 1992 and Placer County 2007-2008)

1.3 Environmental Setting

1.3.1 General Hydrology

The Griff Creek watershed begins at Martis Peak at an elevation of 8,742 feet. The Kings Beach watershed begins east of the Griff Creek watershed at an elevation of approximately 9,400 feet. These watersheds originate in the open forestland north and east of the community of Kings Beach and flow to Lake Tahoe at several points within the area. Due to the variety of land uses within the Kings Beach watershed, this large watershed was divided into six sub-watersheds (Figure 3) to assess runoff characteristics more accurately. Each sub-watershed represents a continuous flow path from the upgradient forestland to a lake outfall.

The upstream contributing areas for each watershed consist almost exclusively of forestland with little to no impervious surface. Stormwater from the upgradient forest appears to be conveyed in defined channels or as overland flow. The downstream contributing areas consist of urbanized residential and commercial developments in the Kings Beach community. Residential uses dominate in the upslope portions of the Kings Beach community, while commercial uses are generally located along the State Route 28 corridor. Industrial uses are also located along the northern portion of the Project site on Speckled Avenue. The urban areas are a mixture of hard, impervious surfaces (streets, driveways, and structures) and erodable, unpaved surfaces (yards and other undeveloped areas). Urban runoff is currently conveyed in open ditches, curb-and-gutter, and subsurface storm drains. Runoff is conveyed under State Route 28 through storm drains and discharged to the lake through a series of culverts. Several detention basins were constructed by Placer County within the urban drainage area to control runoff and reduce pollutant discharge to the lake.

1.3.2 Griff Creek SEZ

Griff Creek is the primary channel in the Project area and has a steep slope and medium to high vegetation cover. The creek valley is heavily encroached upon by urban infrastructure in Kings Beach. Much of Griff Creek within Kings Beach is either channelized or excessively eroded (Placer County 2006a). Both of these conditions have resulted in high stream velocities and widespread disconnection of the Griff Creek channel from its historic floodplain. Historically, high flows would overtop the creek banks (overbank) and spread out onto the floodplain. Under these conditions, erosive stream energy is reduced, resulting in deposition of suspended sediment and nutrients onto the floodplain. As the result of increased runoff rates and volumes and encroachment by urban uses, the channel has incised and widened. Due to the increased channel volume, flow during most runoff events is contained within the channel and therefore, the natural sedimentation filtering effects of the SEZ are minimized. These changes have reduced the overbanking frequency and related deposition of sediment and nutrients onto the floodplain.

Griff Creek flows through culverts at Canterbury Drive, Cambridge Drive, Speckled Avenue, Dolly Varden Avenue, and State Route 28. Each road crossing is a barrier to SEZ hydrologic and habitat connectivity. All culverts have insufficient high flow conveyance, resulting in sediment deposition at the upstream end of the culverts and channel scouring at the downstream ends. The culverts pose fish passage problems due to a combination of factors, including shallow flow depths at low flow, rapid velocities within the culverts at moderate to high flows, and culverts that are too high for fish to jump into.

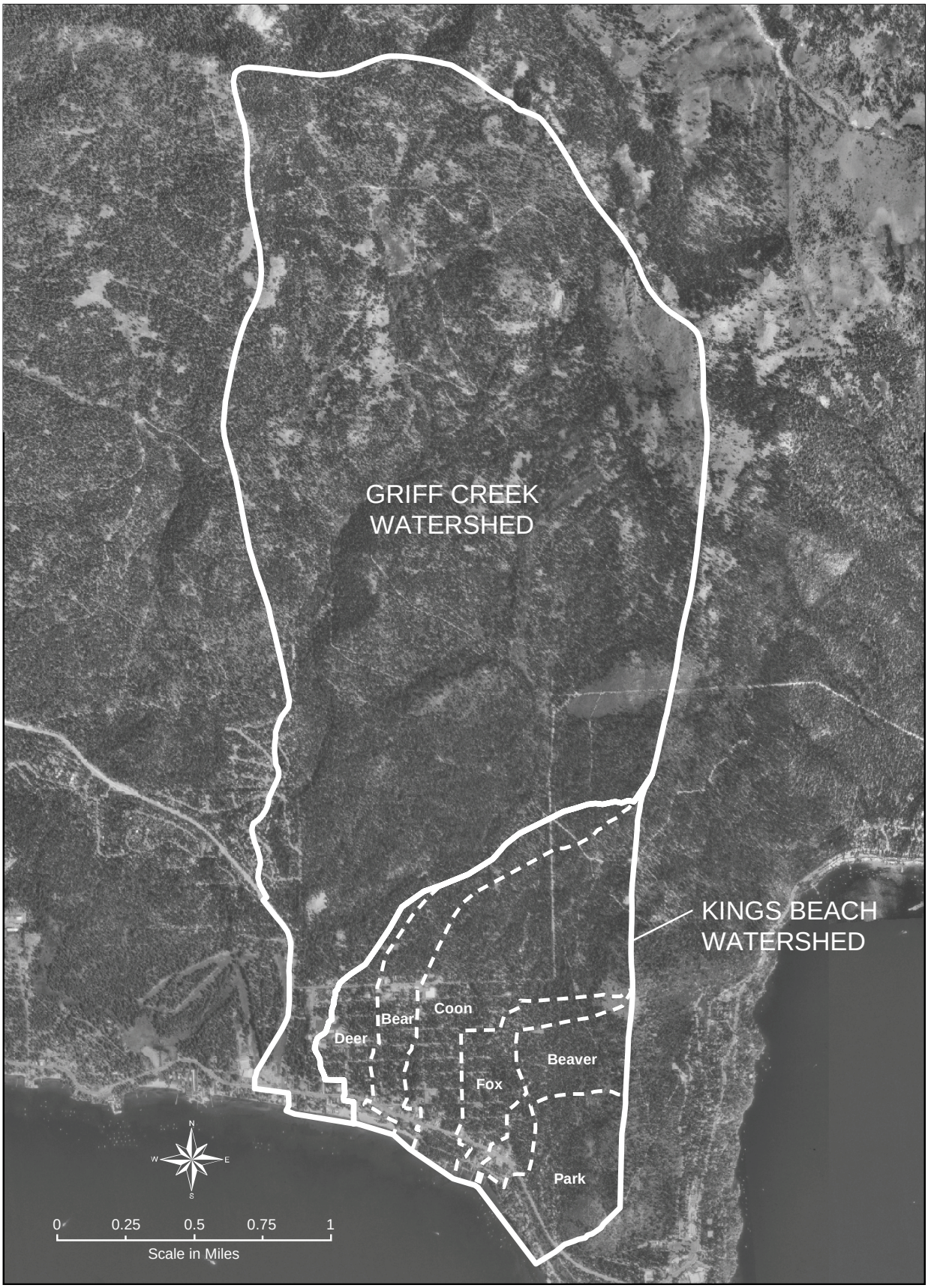

Figure 3. Watersheds contributing flow through the Project area.
The Kings Beach watershed is divided into smaller sub-watersheds (dashed lines) to accurately assess runoff characteristics through Kings Beach.

1.3.3 Coon Street SEZ

The Coon Street sub-watershed and its associated SEZ are located east of Griff Creek in Kings Beach. The sub-watershed drains about 356 acres of land and empties into Lake Tahoe. Most of the upper Coon Street sub-watershed is forested land owned by the USFS. Approximately the lower third of the sub-watershed is in heavily urbanized Kings Beach. The Coon Street drainage is seasonal. Water only flows through the drainage during spring snowmelt runoff and after large rainstorms.

The Coon Street SEZ is largely limited to highly fragmented open fields along the urbanized drainage course in parcels that have not been developed. For much of the drainage, water is conveyed through rock lined ditches along the side of the road, in backyards, in-between homes and businesses, and through culverts under roads. At the intersection of Brook Avenue and Coon Street, the drainage is directed underground and re-emerges near the north end of the Kings Beach pier south of State Route 28.

1.3.4 Water Quality

Development of the Kings Beach area has increased the potential for pollutant loading in runoff generated in urban areas. The proximity of the Kings Beach area to Lake Tahoe and limited natural water quality treatment of runoff presents the potential for pollutant discharge to the lake. Pollutant loads discharging to Lake Tahoe from the Project area were estimated in the *Hydrologic Conditions Report* (Placer County 2006b). The following table summarizes those estimates.

Table 1. Estimated annual pollutant loads originating from the Project area

	Griff Creek Watershed 2815.3 acres	Kings Beach Watershed 852.0 acres
ANNUAL LOAD PER ACRE (lbs)		
NO3	**0.00**	**0.29**
TKN	**0.11**	**2.32**
SRP	**0.01**	**0.27**
TP	**0.04**	**1.36**
TSS	**4.89**	**435.69**
ANNUAL LOAD BY TOTAL WATERSHED AREA (lbs)		
NO3	**12**	**36**
TKN	**310**	**290**
SRP	**40**	**36**
TP	**104**	**162**
TSS	**13,778**	**50,030**

NO3=Nitrate+nitrite; TKN=Total organic nitrogen+ammonia; SRP=Soluble reactive phosphorus; TP=Total phosphorus; TSS=Total suspended solids

Source: SWQIC 2004

1.4 General Regulatory Setting

The Project is subject to the requirements of federal, state, and regional environmental laws and regulations which ensure the evaluation and control of potential effects upon the human and physical environment. The federal requirements are contained in the National Environmental Policy Act (NEPA) while the state of California requires compliance with the requirements of the California Environmental Quality Act (CEQA). Additionally, projects within the Lake Tahoe region are subject to environmental controls implemented by the Tahoe Regional Planning Agency (TRPA). This document has been prepared to provide environmental analysis of the Project in compliance with NEPA, CEQA, and TRPA. Although the environmental review presented in this document addresses the requirements of NEPA, CEQA, and TRPA, other laws and regulations

implemented by federal, state, and local regulatory and permitting agencies also apply to implementation of the Project.

The regulatory requirements governing specific resource types in the Project area are summarized in conjunction with each of the environmental issue areas evaluated in Section 4.

1.4.1 Regional Plans

The entire Project area falls under the planning jurisdictions of Placer County and the Tahoe Regional Planning Agency (TRPA) with specific parcels falling under the jurisdiction of the U.S. Forest Service and the State of California.

Land use in the Tahoe Basin is guided by the 1987 *Regional Plan for the Lake Tahoe Basin* (Regional Plan), which is a set of documents, plans, and programs that guide all land use decisions in the Tahoe Basin and is the basis for all of TRPA's ordinances and environmental codes. The primary goal of the Regional Plan is to meet and maintain the standards of environmental quality known as Environmental Threshold Carrying Capacities (Thresholds). These Thresholds identify the level of human impact the Lake Tahoe environment can withstand before irreparable damage occurs (TRPA 2008). The Threshold categories include air and water quality, soil and SEZ conservation, noise, recreation, transportation, scenic resources, vegetation, and fish and wildlife.

Land use on USFS parcels is generally guided by the 1988 *Land and Resource Management Plan for the Lake Tahoe Basin Management Unit* (Forest Plan). However, the USFS is directed to cooperate with the TRPA, and federal statutes require the USFS to comply with the environmental thresholds for water, air, and noise (USFS 1988). No determination has been made that legally binds the USFS to the visual, vegetation, wildlife, fishery, and recreation thresholds; nevertheless, programs and projects proposed by the USFS are reviewed against these standards. The TRPA Regional Plan serves as a proxy for the Forest Plan; therefore, local projects that are in conformance with the Regional Plan are, by proxy, in conformance with the Forest Plan.

1.4.2 Specific Plans

The Regional Plan includes specific plans such as community plans and Plan Area Statements (PAS). Plan Area Statements provide a description of land use for particular areas in the Tahoe Basin. The Lake Tahoe Region is divided into more than 175 separate Plan Areas (TRPA 2008). For each Plan Area, a "statement" is made as to how that particular area should be regulated to achieve environmental and land use objectives. Community plans are similar to Plan Area Statements, but focus on specific areas where humans dwell. Community plans are subject to the TRPA Goals and Policies and all standards of the Code of Ordinances, except that a community plan may establish certain standards that provide equal or superior measures to achieve environmental thresholds. Only the following standards may be replaced by a community plan: Density of Use, Noise, Driveway and Parking, and Outdoor Advertising. Community plans replace PAS for the areas within community plan boundaries

The Project area falls within the Placer County General Plan (PCGP) area. However, TRPA's Plan Area Statements and the most recently approved community plans, the Kings Beach Community Plan (KBCP) and the Kings Beach Industrial Community Plan (KBICP), supersede the PCGP within their designated boundaries.

1.5 Permits and Approvals Needed

Permits from the State Department of Fish and Game (DFG), U. S. Army Corps of Engineers (USACE), TRPA, and the California Regional Water Quality Control Board, Lahontan Region (LRWQCB) will be required to implement the Project. The Project will also be subject to the National Pollutant Discharge Elimination System (NPDES) permit issued by the LRWQCB for Project construction activities. Encroachment permits may be necessary from various agencies. Additional permits for disposal of excess material may be required. The following table summarizes the permits, reviews, and approvals that would be required for Project construction.

Table 2. Permits and Approvals Needed

AGENCY	PERMIT/APPROVAL	STATUS
Tahoe Regional Planning Agency	Land Capability Verification, Backshore Delineation, Soils/Hydro Application Report, General Permit	LCV and Backshore Delineation complete/accepted Soils/Hydro Report Application and General Permit to be completed
California Tahoe Conservancy	License Agreements	To be completed
California Regional Water Quality Control Board, Lahontan Region	NPDES NOI, 401 Water Quality Certification, Dewatering Plan, Storm Water Pollution Prevention Plan (SWPPP)	To be completed
California Dept. of Fish and Game	1602 Agreement for Streambed Alteration Section 2080Compliance for Threatened and Endangered Species (TES)	Streambed Alteration Agreement to be completed No TES – no effect
California Department of Transportation (Caltrans)	Encroachment Permits	To be completed with each Project phase
U.S. Fish and Wildlife Service	Section 7 Compliance for Threatened and Endangered Species (TES)	No TES - no effect
U.S. Forest Service	Special Use Permits	To be completed
U.S. Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States (General Nationwide Permit).	To be completed

In order to conduct Project activities on CTC parcels, license agreements must be executed on those parcels. A list of CTC parcels requiring license agreements is provided in Appendix G.

Note, this document provides an analysis of potential environmental impacts for the Project at a level of detail appropriate to 25% design plans (see Appendix C). As the Project design is finalized, more detailed information will become available; therefore, when DPW is ready to begin construction of the first phase of the Project, the permit application documents will incorporate not only the information included in this environmental document (including all measures to avoid, minimize, and/or mitigate environmental effects), but also any new or more detailed information as appropriate for construction.