

Appendix D

NATURAL ENVIRONMENTAL STUDY

KINGS BEACH WESTERN APPROACH PROJECT

Kings Beach Western Approach Project



Natural Environment Study

Intersection of SR 28 and SR

267 Kings Beach, CA

District 3-Placer County-28-267-8.7-9.4/9.6-

10.0 Project Number: 0318000146

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Natural Environment Study

STATE OF CALIFORNIA
Department of
Transportation and Placer
County

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Natural Environment Study

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Summary

This Summary includes the results of an impact analysis, findings of the supporting technical reports, and a summary of the general biological studies. The negative and positive impacts, as well as the agreed upon mitigation measures and permits that will be required for this roadway improvement project are also included in this section.

Placer County, in cooperation with Caltrans, proposes roadway improvements at and around the intersection of State Route (SR) 267 and North Lake Boulevard (SR 28) within the County of Placer to enhance the safety and mobility of all roadway users, and to expand the streetscape aesthetics of the area. This project, known as the Kings Beach Western Approach Project (Project), will connect with the complete street improvements of the adjacent KBCCIP completed in October 2017 for the downtown core of the unincorporated community of Kings Beach. As a result, the project will provide a continuous complete street corridor from the downtown core to the west side of the community demarcated by the intersection of SR 28 and SR 267. The project is currently funded through the Project Approval (PA) and Environmental Document (ED) Phase. The County is funding the PA & ED phase with Surface Transportation Block Grant (STBG) funds and Local County funds. Funding of future project phases is yet to be determined.

The project is needed to improve overall accessibility, mobility and safety for all roadway users while providing a continuous complete street corridor. The County desires to provide better connectivity between the downtown core and the west side of the community that extends to all transportation modes. The project is needed to provide safer facilities for cycling and walking. While the existing intersection has bicycle lanes, sidewalks and crosswalks along SR 28, they are narrow, adjacent to traffic and are obstructed by the existing signal infrastructure and therefore need to be expanded to provide safer, dedicated facilities for local residents and visitors.

The project is needed to provide bicycle and pedestrian connectivity along SR 267 from the Kings Beach neighborhood community to the intersection with SR 28. Currently, no pedestrian and bicycle facilities exist along this roadway.

Furthermore, the road diet portion of the project is needed to improve safety for all users and help to reduce speeds in the area.

Goals and objectives of the project include: 1) improve safety and mobility for bicyclists and pedestrians; 2) provide a complete street corridor that connects to the Kings Beach Commercial Core Improvement Project (KBCCIP); and 3) consistency with local, regional and state planning.

Temporary impacts to construction staging areas will occur on existing developed roadside area as well as individual parcels. The complete street corridor will be a permanent impact in both the developed land and in the riparian corridor. No indirect or cumulative impacts are foreseen.

A United States Fish and Wildlife Service species list was accessed through the Information Planning and Conservation website for the proposed project. Effects to federally listed species were assessed and are discussed in further detail in this Natural Environment Study, but the results of the Information Planning and Conservation report indicate no critical habitat exists within the project area. The California Department of Transportation signed Preliminary Environmental Analysis Report also indicated no need

for a Biological Assessment. As a result, it was determined that the project will have no effect on federally listed species; therefore, no Section 7 consultation is required.

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List of Abbreviated Terms

AOI	Area of Impact
BSA	Biological Study Area
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CDFG	California Fish and Game
CDFW	California Department Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPESC	Certified Professional in Erosion and Sediment Control
CWA	Clean Water Act
ESA	Federal Endangered Species Act
Ft	foot/feet
IPaC	Information Planning and Conservation
m	meter(s)
NES	Natural Environmental Study
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
PM	post mile
SSS	special status species
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFS	United States Forest Service
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
WOUS	Waters of the United States

Chapter 1 - Introduction

The purpose of this Natural Environment Study (NES) is to describe the existing biological environment and how the project will affect that environment including plants, animals, and natural communities occurring in the Project Impact Area (PIA).

The proposed project is located at the intersection of State Route (SR) 28 and SR 267 in Kings Beach, California. The PIA (10.47 acres) extends approximately 0.5 miles west of the intersection along the SR 28 corridor and approximately 0.25 miles north of the intersection along SR 267. The Kings Beach Western Approach Project (Project) will improve the existing signaled intersection and replace it with a modern roundabout or a modified signal intersection with new lane alignments. The existing intersection has bicycle lanes, sidewalks and crosswalks along SR 28, they are narrow, adjacent to traffic and are obstructed by the existing signal infrastructure and therefore need to be expanded to provide safer, dedicated facilities for local residents and visitors.

1.1 Purpose and Need

The purpose of the Project is to improve overall accessibility, mobility and safety for all roadway users while providing a continuous complete street corridor. Placer County (County) desires to provide better connectivity between the downtown core and the west side of the community that extends to all transportation modes. The Project is needed to provide safer facilities for cycling and walking.

Goals and objectives of the Project include: 1) improve safety and mobility for bicyclists and pedestrians; 2) provide a complete street corridor that connects to the Kings Beach Commercial Core Improvement Project (KBCCIP); and 3) consistency with local, regional and state planning.

1.2 Project Description

This proposed Project will take place in Placer County on SR 28 and on SR 267 at post mile 9.34 of SR 28. See (**Figure 1**).

Placer County, in cooperation with California Department of Transportation (Caltrans), is proposing roadway improvements at and around the intersection of SR 267 and SR 28 to enhance the safety and mobility of all roadway users, and to expand the streetscape aesthetics of the area. This Project would provide a continuous complete street corridor from the downtown core to the west side of the community demarcated by the intersection of SR 28 and SR 267.

Existing Conditions

SR 267

In the existing condition, SR 267 is a two-lane facility that terminates at the intersection of SR 28. SR 267 is designated as a bicycle route but does not currently have marked bicycle lanes and there are varying width shoulders. There are no pedestrian improvements along SR 267.

On the east side of the roadway there are many driveways and existing private property improvements behind the existing curb, gutter and underground drainage system.

On the west side of the roadway there is existing curb, gutter and underground drainage system. Behind the existing curb and gutter is a wood fence and trees that visually shield the roadway from the golf course.

There is no lighting on SR 267 except at the intersection with Dolly Varden.

SR 28

Within the project limits, SR 28 is a five-lane facility consisting of two lanes in each direction with a two-way left turn (TWLT) lane. For approximately 2,000 linear feet (lf) west and 280 lf east of the intersection with SR 267, SR 28 maintains the five-lane configuration before dropping down to a three-lane facility consisting of one lane in each direction with a TWLT lane. This is the only five-lane section in North Tahoe and effectively serves as a passing lane. As a result, this portion of SR 28 experiences vehicles exceeding the speed limit as document in a speed survey conducted in the summer of 2019.

Within the project limits, SR 28 has marked bicycles lanes in the east and westbound direction and sidewalk on the north and south side for a short distance where the sidewalks terminate and there is just curb and gutter and some sections of just pavement with no edge treatment. Just west of the intersection is a striped midblock crossing allowing pedestrians to cross the 5-lane road. No lighting is provided at the midblock crossing.

The only lighting along SR 28 is decorative pedestrian lighting for the sidewalks.

SR28/SR 267 Intersection

The existing intersection of SR 267/SR 28 is an existing signalized intersection with intersection lighting and crosswalks located only on the northern and western legs. There are sidewalks along SR 28 that currently terminate just north of the intersection and do not continue north on SR 267. There is existing curb, gutter and sidewalk adjacent to the intersections and an underground drainage system. While there are sidewalks at the intersection, the sidewalk is obstructed by existing signal poles.

Brassie Avenue

Brassie Avenue is a County road that is located just to the west of the SR 28/SR 267 intersection. Brassie Avenue is one lane in each direction with no bicycle or pedestrian facilities. One street light is provided on Brassie Avenue is provided at the intersection with SR 28.

Build Alternatives

Placer County proposes to evaluate two project alternatives: a no build alternative and one build alternative, a roundabout.

No Build Alternative

The no build alternative at the SR 267/SR 28 intersection would result in no changes to the existing roadway. The existing conditions would remain. This alternative does not meet the proposed project's purpose and need.

Build Alternative – Four Leg Hybrid Roundabout

This alternative project will remove the existing signal and replace it with a modern roundabout. This alternative shifts the intersection to the west of the existing intersection and incorporates Brassie Avenue into the intersection, making it a four-legged intersection.

The proposed roundabout will be hybrid roundabout, which means that it is neither a single lane nor a multi-lane roundabout. The roundabout will be single lane in all directions except in the eastbound direction. In the eastbound direction, the entry flares from a single lane to a through lane and a left turn lane, making a short multilane section through the circulatory roadway in the eastbound direction. In the westbound direction, there is a single through lane and a dedicated right turn lane onto SR 267.

This alternative will also implement a road diet by re-striping SR 28 to three lanes from the intersection to approximately 2,000 feet west and 280 feet east of the intersection with SR 267 in order to remove the only five lane section on the north shore of Lake Tahoe.

The alternative will also look to provide a sidewalk along the east side of SR 267 from the intersection with SR 28 north to the intersection with Dolly Varden Ave. The project will also look to add bicycle lanes on both the east and west side of SR 267 from the intersection with SR 28 to Dolly Varden Ave. These improvements may be constructed as part of the project or phased for a future project.

The drainage systems and utility relocations are anticipated to be no deeper than six feet. However, existing utility depths are not known at this time and, therefore, the depths of both the drainage system and utility relocation may vary based on existing conditions.

The project is proposing to install permanent water quality features and use Best Management Practices (BMPs) to improve water quality and meet County, TRPA, Caltrans, and Federal Standards.

This alternative will include intersection and/or pedestrian lighting. All roadside and pedestrian lighting will be downcast lighting to help protect the night sky and minimize light spill over.

All pedestrian facilities will be compliant with the American's with Disability Act (ADA). The proposed material for the pedestrian facilities outside of the traveled way is concrete. Within the traveled way the material of the crosswalk will be asphalt or concrete. All crossings will be marked with Manual on Uniform Traffic Control Devices (MUTCD) compliant crosswalk markings and signing.

All improvements associated with the build alternative have been designed to allow for construction staging that maintains traffic flow during construction with minimal closures.

This alternative will require acquisition of permanent right of way as well as temporary construction easements and/or permits to enter and construction.

Roundabout Proposed Features:

The roundabout alternative at this intersection may have the following features:

- Standard roundabout geometric features such as shared use path, crosswalks, splitter islands, truck apron with central island, and landscape buffer between the circulatory roadway and shared use path
- Sidewalk and bicycle lanes on approaches to the roundabout
- Crosswalks within the roundabout may include the installation of Rectangular Rapid Flashing Beacons (RRFBs), Pedestrian Hybrid Beacon (PBH) or equivalent traffic control device
- Permanent Right of Way acquisition from a single property at northwest corner of the intersection
- Temporary construction easements or rights of entries from property owners on the south and northeast sides of the intersection are likely
- Modification of the access to the condominiums on the south side of the intersection and to the two businesses located on the northeast corner of the intersection.
- Removal and replacement of the existing intersection and pedestrian lighting in conformance with Caltrans and roundabout lighting standards. At a minimum lighting will be provided at the vehicle-vehicle conflict points at the intersection, vehicle-pedestrian conflict points at the crosswalks, and at the nose of each splitter island
- Removal of existing trees within the project limits. New landscape areas will be provided with tree planting to the maximum extent possible
- Installation of landscaping and/or public art in the central island, splitter islands, and landscape buffer areas located between the sidewalk and the traveled way. In some locations landscaping and/or public art may be installed behind the back of the sidewalk. The public art may be installed as part of the project or as a future phase
- Removal and replacement of existing signing, as appropriate. New side mounted and potential for overhead signs will be placed to assist in navigating the approach to the roundabout and through the roundabout. The potential for overhead signs will be analyzed as part of the alternative selection process and will be used only on the multi-lane approaches to make sure cars are getting into the correct lanes
- Requires removal and replacement of existing survey monuments located within the project limits
- Requires removal and replacement of the existing storm drain system. Where feasible the existing system will be maintained and adjusted to new locations
- Restriping all crosswalks and roadways within the limits of the project
- Modification to the existing irrigation systems
- Removal of a manmade storm water basin on private property
- Installation on new storm water/water quality features to the maximum extent practicable
- May require re-grading of the existing intersection.

Sidewalk & Bicycle Lanes Along SR 267 Proposed Features:

Sidewalks will be constructed behind the existing curb and gutter along the eastern shoulder of SR 267 and bicycle lanes will be installed on the east and west side within the existing shoulders from the limits of the build alternative to Dolly Varden Ave. Proposed improvements are anticipated to include:

- Removal and replacement of existing curb and gutter as needed
- Concrete construction of the sidewalk with minor grading to conform to existing features
- Removal of existing trees, shrubs, bushes, landscape rocks, asphalt and other misc. materials
- Removal and replacement of existing signage as needed.
- Minor roadway widening to accommodate the bicycle lane
- Restriping of the roadway to accommodate the bicycle lanes
- Installation of pedestrian lighting along the corridor. This will be low level lighting by either bollards or shorter post mounted lighting

Restriping of SR 28 Proposed Features:

Restripe SR 28 from the limits of the build alternative to approximately 2,000 ft west of the intersection to be one lane in each direction with a TWLT lane, including bicycle lanes. The existing curb, gutter, sidewalk, shoulders, etc. will remain in place. The additional pavement width will be used to provide wider bicycle facilities with a buffer (striping only) and/or sections of on street parking. Proposed improvements are anticipated to include:

- Grinding and overlaying and/or slurry sealing existing roadway
- Restriping the roadway into the new configuration including restriping existing pedestrian crossings
- Installation of enhanced pedestrian crossing features. These enhancements may include some or all of the following: rectangular rapid flashing beacons, pedestrian hybrid beacon, median, bulb-out, signing, lighting, and high visibility markings.

Construction Staging Areas

Various potential locations have been identified for construction staging for the project and will be evaluated as part of the project (**Figure 1**). The locations are described below:

Lot A: Private lot north of SR 28, west of the Placer County offices:

This lot is a privately-owned lot that is currently undeveloped, but previously disturbed. This is a small lot but is reasonable for material/equipment storage and is easily accessible from County roadways and not far from the project site.

Lot B: County parking lots behind Rite-Aid at the southeast corner of Deer and Rainbow:

This is paved parking lot owned by the County and would allow for material/equipment storage and is easily accessible from County roadways and not far from the project site.

Lot C: Private lot at Fox Street and SR 28:

This lot is a privately-owned lot that is currently undeveloped, but previously disturbed and has been used on multiple projects as a staging area. This lot would allow for material/equipment storage and is easily accessible from County roadways and not far from the project site.

Lot D: School ball field:

This lot is currently being used for staging for the school project. This lot would be used while school is not in session.

Lot E: Fairview excavating on Speckled:

This lot is a privately-owned lot that is currently undeveloped, but previously disturbed and has been used on multiple projects as a staging area. This lot would allow for material/equipment storage and is easily accessible from County roadways and not far from the project site.

Chapter 2 - Study Methods

2.1 Regulatory Requirements

The following regulatory requirements are applicable for the Project. The Project intends to satisfy all applicable Federal and State regulations as well as local ordinances and regulations that protect biological resources.

2.1.1. FEDERAL REGULATORY REQUIREMENTS

2.1.1.1. Endangered Species Act

The Federal Endangered Species Act (ESA) protects plants and wildlife that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS). Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). This statute also governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging-up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law.

Under Section 7 of the ESA, federal agencies are required to consult with the USFWS and/or National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) if their actions, including permit approvals or funding, could adversely affect a federally listed species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS or NOAA Fisheries may issue an incidental take statement allowing take of the species that is incidental to another otherwise authorized activity, provided that the action will not jeopardize the continued existence of the species.

2.1.1.2. Clean Water Act

The United States Army Corps of Engineers (USACE) Regulatory Branch regulates activities that discharge dredged or fill materials into Waters of the United States, which includes wetlands (WOUS) under Sections 401 and 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act.

Section 401 of the CWA requires that an applicant proposing to conduct any activity that may result in a discharge to a WOUS must apply for and secure a Section 401, Water Quality Certification prior to construction activities. The Lahontan Regional Water Quality Control Board Region 6 (LRWQCB) will administer the Section 401 Water Quality Certification for this project.

2.1.1.3. Migratory Bird Treaty Act

The Migratory Bird Treaty Act makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. California Fish and Game (CDFG) Code (Section 3500) also prohibits the destruction of any nest, egg, or nestling.

2.1.1.4. Executive Order 13112 – Invasive Species

Executive Order 13112 requires federal agencies to combat the introduction or spread of

invasive species in the United States. Invasive species are defined as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.”

Federal Highway Administration (FHWA) guidance issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

2.1.2. STATE REGULATORY REQUIREMENTS

2.1.2.1. California Environmental Quality Act

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the CDFG Code, an Incidental Take Permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the “take” of a State listed threatened or endangered species. Under the CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species proposed for listing (called “candidates” by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. A Section 2081 permit is issued when a project is consistent with an existing Biological Opinion.

2.1.2.2. California Endangered Species Act

Pursuant to the CESA and Section 2081 of the CDFG Code, an Incidental Take Permit from the CDFW is required for projects that could result in the “take” of a State listed threatened or endangered species. Under the CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species proposed for listing (called “candidates” by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. A Section 2081 permit is issued when a project is consistent with an existing Biological Opinion.

2.1.2.3. Porter-Cologne Water Quality Control Act

The Porter-Cologne Act provides the State with very broad authority to regulate “waters of the State” (which are defined as any surface water or groundwater, including saline waters). The State Regional Water Quality Control Board is granted ultimate authority over water quality policy in the State of California. Before allowing discharges that may affect the quality of Waters of the State, a Report of Waste Discharge must be filed with the LRWQCB.

2.1.2.4. California Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900-1913) was created in order to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. CESA provided further protection for rare and endangered plant species, but the NPPA remains part of the CDFG Code.

2.2 Studies Required

2.2.1 BIOLOGICAL STUDY AREA

The Biological Study Area (BSA) includes the PIA plus a one-mile radius. (**Figure 2**). The BSA includes an area where SSS or their habitat may exist that is outside of the footprint of the proposed improvements. The BSA is important because it considers the possible movement of species, impacts to SSS as a result of the project that extend beyond the PIA, and allows the biologist to evaluate possible affects to SSS as a result of changes to Project limits and Project design.

The PIA includes all areas that could potentially be impacted by the Project plus a buffer to accommodate any changes to project limits and project design that may occur during project development. The PIA (**Figure 1**) is located at the intersection of SR 28 and SR 267 in Kings Beach, California. The PIA extends approximately 0.5 miles west of the intersection along the SR 28 corridor and approximately 0.25 miles north of the intersection along SR 267 and is 10.47 acres.

2.2.2 LITERATURE

NCE conducted a literature and database review to identify existing biological and botanical information within the BSA. The purpose of this review was to identify vegetation communities in the BSA and to develop a list of potential special status species (SSS) and critical habitat occurring within the Project vicinity (1-mile radius). Special status species are all listed biological or botanical species with special protection or consideration under federal, state, and local regulatory policies. NCE conducted background research on biological resources known to occur in the Biological Study Area.

NCE scientists conducted reconnaissance-level surveys in order to inventory habitats and to determine the presence or absence of special status species within the PIA. Vegetation types were initially identified with the CALVEG Alliances GIS data (USDA 2016) (**Figure 3**), and then verified based on the NCE reconnaissance-level survey. The most relevant searches, reviews, and requests included:

- California Natural Diversity Data Base (CNDDB)
 - 2019 Natural Diversity Data
- California Native Plant Society (CNPS)
 - 2019 Inventory of Rare and Endangered Plants
- Natural Resource Conservation Service (NRCS)
 - Web Soil Survey
- NOAA National Marine Fisheries Service (NOAA Fisheries) Species List
 - The Project is located outside of NOAA Fisheries jurisdiction; therefore, a NOAA Fisheries species list is not required.
- TRPA Special Interest Species
 - Suitable meadow and fawning habitat that could sustain the reproductive and cover needs for mule deer is not present within the project area.
 - Suitable nesting habitat for the northern goshawk is not present within the PIA.
 - No improvements are proposed along the Lake Tahoe shoreline.
- USACE
 - 1987 Corps of Engineers Wetlands Delineation Manual
- USFWS and CDFW
 - Federal and state listed species that may be affected by the Project

- US Department of Agriculture (USDA)
 - 2018 CALVEG GIS Layers

2.2.3 PERSONNEL AND SURVEY DATES

On October 31, 2018 an aquatic resource delineation was conducted by NCE scientist Debra Lemke, and reconnaissance level botanical survey, wildlife survey, and habitat assessment was performed by NCE scientist Mack Casterman. July 9, 2019 NCE scientists Debra Lemke and Sarah Bryan completed a follow-up aquatic resource delineation and Quinn Radford conducted follow-up reconnaissance level biological and botanical surveys, and a habitat assessment.

2.2.4 SURVEY METHODS

The purpose of the reconnaissance-level surveys was to 1) evaluate and verify on site vegetation communities, 2) verify no critical wildlife habitats are present in the PIA, and 3) develop an inventory for any possible SSS and non-SSS biological and botanical resources. Botanical surveys were conducted by walking the entire study area following the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2009). While walking the PIA documenting plants, the biologist frequently scanned trees and the sky for birds with binoculars and made note of any animals observed. All plant and animal species observed were identified and recorded in **Table 1**. An aquatic resource delineation of identified resources followed the methods described in the 1987 Corps of Engineers Wetland Delineation Manual and regional supplements.

2.2.5 AGENCY COORDINATION AND PROFESSIONAL CONTACTS

Agency coordination has been limited to discussions with the County, California Department of Transportation, and a meeting May 3, 2019 with TRPA officials. Further coordination with the TRPA, USFWS, CDFW, RWQCB, and USACE will be based on the results of this NES. Any additional survey requirements will be determined during this coordination which will be administered by the County and Caltrans.

2.2.6 LIMITATIONS THAT MAY INFLUENCE RESULTS

There are no known limitations or constraints that may influence the results of the analysis or field surveys. Surveys were timed appropriately, and standard protocols were followed. There was no atypical weather and no accelerated schedule.

The reconnaissance-level surveys took place over the course of two growing seasons (2018 and 2019) increasing the likelihood that any plant species that do not germinate every year would be detected.

Chapter 3 - Results: Environmental Setting

Description of the Existing Biological and Physical Conditions

3.1 Study Area

Land use in the BSA includes both private and public lands. The BSA includes the Lake Tahoe shoreline and is generally made up of privately-owned parcels and public right-of-way with some federal land in the undeveloped northern section of the BSA. (Figure 2)

3.2 Physical Conditions

The PIA (Figure 1) is located in the Kings Beach USGS 7.5-minute topographic quadrangle. The elevation of the project area ranges from 6,230 ft. to 6,270 ft. above sea level. The topography of the PIA is gently sloping from the shores of Lake Tahoe to uplands in the central and northern section of the PIA. Griff creek passes through the eastern edge of the PIA and outfalls to Lake Tahoe to the south.

Per the NRCS Soil Web Survey, the PIA contains 90.7% Kingsbeach stony sandy loam, 2 to 15 percent slopes, 1.4% Watah peat, 0 to 2 percent slopes, 5.4% Tahoma-Jorge complex, 2 to 15 percent slopes, and 2.6% Oxyaquic Cryorthents- Aquic Xerorthents- Tahoe complex, 0 to 15 percent slopes.

Kingsbeach stony sandy loam is a soil component that occurs on mountains, alluvial fans, and lake terraces. The parent material consists of alluvium and/or colluvium derived from andesite over lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during May, June. Organic matter content in the surface horizon is about 80 percent. Below this thin organic horizon, the organic matter content is about 2 percent. This component is in the F022AE025CA. *Pinus Jeffreyi* - *Abies concolor*/*Rubus parviflorus* - *Symphoricarpos mollis* ecological site. Non-irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Watah peat, 0 to 2 percent slopes is a soil component that occurs on valley flats, fens, and flood plains. The parent material consists of organic material over alluvium. Depth to a root restrictive layer is greater than 80 inches. The natural drainage class is very poorly drained. The frequency of flooding and ponding is frequent. The component is in the R022AX103CA Frigid Anastomosed System, Cryic Meadow System, and Sphagnum Fen. Non-irrigated land capability is 5w. This soil does meet hydric criteria.

Tahoma-Jorge complex, 2 to 15 percent slopes is a soil component that occurs on mountain slopes and hillslopes. The parent material consists of colluvium over residuum weathered from andesite. Depth to a restrictive layer is 40 to 80 inches to lithic bedrock. The natural drainage class is well drained. The frequency of flooding and ponding is none. The component is in the F022AE013CA Frigid, Loamy, Volcanic Mountain Slopes, and Frigid, Sandy, Or Loamy Outwash. Non-irrigated land capability is 4e. This soil does not meet hydric criteria.

Oxyaquic Cryorthents- Aquic Xerorthents- Tahoe complex is a soil component that occurs

on drainageways, and mountains. The parent material consists of alluvium and/or colluvium derived from mixed. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 29 inches during March, April, May. Organic matter content in the surface horizon is about 80 percent. Below this thin organic horizon, the organic matter content is about 6 percent. This component is in the F022AX101CA *Populus Tremuloides/veratrum Californicum* var. *Californicum-elymus Glaucus* ecological site. Non-irrigated land capability classification is 6w. This soil does not meet hydric criteria (NRCS 2019).

The regional climate of the PIA consists of warm dry summers and cold, wet winters. Temperatures vary throughout the year from an average maximum temperature of 77.9 degrees Fahrenheit in July to an average minimum temperature in January of 19.1 degrees Fahrenheit (WRCC 2019). The majority of precipitation falls from October to April averaging 31.46 inches per year. Annual snowfall is 190.7 inches per year (WRCC 2019).

3.3 Biological Conditions in the Biological Study Area

3.3.1 VEGETATION

The majority of the PIA is composed of a primarily urban land fragmented by aspen, Jeffrey pine, and montane chaparral. Thickets of aspen occur along riparian corridors. The remainder of the PIA is characterized by urban land in the form of paved roadway and built structures. The aspens growing within and adjacent to the PIA do not constitute an intact grove due to the urbanized nature of the area. No plant communities in the PIA qualify as Natural Communities of Special Concern.

Urban Land:

Developed urban land areas are characterized by built infrastructure and impermeable surfaces and the vegetated areas are landscaped. Developed areas within the PIA include the paved corridors of SR 267 and SR 28 as well as several developed private lots. Often these developed areas are located adjacent to disturbed natural communities. Approximately 90% (9.30 acres) of the PIA is developed (**Figure 3**).

Jeffrey Pine Forest:

The Jeffrey pine (*Pinus jeffreyi* Forest Alliance) plant community is composed of Jeffrey pine and white fir (*Abies concolor*) as co-dominant species in the canopy layer. This association occurs throughout the Sierra Nevada mountains on raised stream benches, ridges, and plateaus on all slopes and aspects. Soils are generally infertile and shallow. Approximately 0.42 acres of Jeffrey pine forest were observed within the PIA (**Figure 3**).

Montane Chaparral:

The mountain whitethorn chaparral (*Ceanothus cordulatus* shrubland alliance) plant community is characterized by mountain whitethorn (*Ceanothus cordalatus*) dominant in the shrub canopy with Greenleaf manzanita (*Arctostaphylos patula*), buckbrush (*Ceanothus cuneatus*), chinquapin (*Chrysolepis sempervirens*), and huckleberry oak (*Quercus vacciniifolia*) also present co- dominant in the shrub canopy. This alliance occurs in the northern Sierra Nevada Mountains between 3,000 and 9,000 feet in elevation. The

alliance occurs on montane ridges and upper slopes, and recently burned forest openings. Approximately 0.40 acres of montane chaparral were observed within the PIA (**Figure 3**).

Reconnaissance-level surveys resulted in neither botanical nor wildlife SSS detections. An inventory of common plants and animals encountered during the survey is presented in **Tables 1** and **2** below.

TABLE 1: COMMON PLANT AND ANIMAL INVENTORY FROM OCTOBER 31, 2018 AND JULY 9, 2019 RECONNAISSANCE-LEVEL SURVEYS

Scientific Name	Common Name	Native: Y, N
<i>Acer</i> sp.	Maple	N
<i>Achillea millefolium</i>	Yarrow	Y
<i>Alnus incana</i>	Alder	Y
<i>Arctostaphylos</i> sp.	Manzanita	Y
<i>Arctostaphylos uva ursi</i>	Kinnickinnick	Y
<i>Berberis aquifolium</i>	Mountain grape	Y
<i>Bromus tectorum</i>	Cheatgrass	N
<i>Carex</i> sp.	Sedge	Y
<i>Carex capitata</i>	Capitate sedge	Y
<i>Carex utriculata</i>	Beaked sedge	Y
<i>Carex vesicaria</i>	Blister sedge	Y
<i>Cirsium andersonii</i>	Anderson's thistle	Y
<i>Cornus sericea</i>	American dogwood	Y
<i>Chamerion angustifolium</i>	Fireweed	Y
<i>Chenopodium album</i>	Lamb's quarter	N
<i>Elymus cinereus</i>	Great basin wild rye	Y
<i>Elymus hispidus</i>	Intermediate wheatgrass	Y
<i>Epilobium ciliatum</i>	Fringed willowherb	Y
<i>Equisetum arvense</i>	Common horsetail	Y
<i>Equisetum hyemale</i>	Scouring horsetail	Y
<i>Festuca idahoensis</i>	Blue fescue	Y
<i>Festuca perennis</i>	Italian rye grass	N
<i>Juncus</i> sp.	Rush	Y

<i>Lactuca serriola</i>	Prickly lettuce	N
<i>Lathyrus latifolius</i>	Perennial pea	N
<i>Leucanthemum vulgare</i>	Oxeye daisy	N
<i>Lupinus breweri</i>	Brewer's lupine	Y
<i>Lupinus polyphyllus</i>	Meadow lupine	Y
<i>Mahonia aquifolium</i>	Oregon grape	Y
<i>Matricaria discoidea</i>	Pineapple weed	Y
<i>Melilotus albus</i>	White sweetclover	N
<i>Pinus jeffreyi</i>	Jeffrey pine	Y
<i>Pinus ponderosa</i>	Ponderosa pine	Y
<i>Plantago lanceolata</i>	Plantain	Y
<i>Populus tremuloides</i>	Quaking aspen	Y
<i>Populus trichocarpa</i>	Black cottonwood	Y
<i>Potentilla</i> sp.	Cinquefoil	Y
<i>Rosa californica</i>	Wild rose	Y
<i>Rosa pisocarpa</i>	Cluster rose	Y
<i>Rubus parviflorus</i>	Western thimbleberry	Y
<i>Rumex crispus</i>	Curly dock	N
<i>Salix lasiolepis</i>	Arroyo willow	Y
<i>Salix scouleriana</i>	Scouler's willow	Y
<i>Scirpus microcarpus</i>	Mountain bog bulrush	Y
<i>Symphoricarpos mollis</i>	Snowberry	Y
<i>Taraxacum officinale</i>	Common dandelion	N
<i>Trifolium pretense</i>	Red clover	N
<i>Typha latifolia</i>	Narrow leaf cattail	Y
<i>Verbascum thapsus</i>	Wooly mullein	N
<i>Veronica serpyllifolia</i>	Thymeleaf speedwell	Y
<i>Wyethia mollis</i>	Mule ears	Y

3.3.2 NOXIOUS SPECIES

Reconnaissance-level surveys resulted in four (4) noxious plant detections. For the purposes of this report, noxious weeds are those plants which are designated as “Noxious” by the United States Department of Agriculture (USDA), or the California Department of Food and Agriculture (CDFA), and any plants listed on the California Invasive Plant Council’s (Cal-IPC) Invasive Plant Inventory. These plants are:

- Cheatgrass (*Bromus tectorum*) – Cal-IPC “High”
- Curly dock (*Rumex crispus*) – Cal-IPC “Limited”
- Plantain (*Plantago lanceolata*) – Cal-IPC “Limited”
- Woolly mullein (*Verbascum thapsus*) – Cal-IPC “Limited”

3.3.3 WILDLIFE

There were three (3) bird species observed in the PIA during the October 31, 2018 survey. No fish, reptile, or mammal species were observed during this survey. All wildlife species observed during the reconnaissance-level survey were documented (**Table 2**).

There were 4 bird species and 1 mammal species observed in the PIA during the July 9, 2019 survey. No fish or reptiles were observed during this survey. All wildlife species observed were documented and are included in the table below (**Table 2**).

TABLE 2: OBSERVED WILDLIFE SPECIES DURING OCTOBER 31, 2018 AND JULY 9, 2019 SURVEYS

Scientific Name	Common Name
Birds 2018	
<i>Anas platyrhynchos</i>	Mallard
<i>Branta canadensis</i>	Canada goose
<i>Cyanocitta stelleri</i>	Steller’s jay
Birds 2019	
<i>Euphagus cyanocephalus</i>	Brewers blackbird
<i>Cyanocitta stelleri</i>	Steller’s jay
<i>Poecile gambeli</i>	Mountain chickadee
<i>Turdus migratorius</i>	American robin
Mammals 2019	
<i>Neotamias speciosus</i>	Lodgepole chipmunk

3.3.4 WILDLIFE CORRIDORS

A wildlife corridor is an area of habitat connecting wildlife populations and larger areas of similar wildlife habitat. These corridors generally consist of native vegetation and allow wildlife species to find water, food, shelter, and potential mates. Corridors enable the movement of animals and the continuation of viable populations thus playing a role in the maintenance of biodiversity. The BSA contains potential corridors for the movement of animals due to areas of contiguous forest to the north of the PIA. However, this area is limited to developed roadway and adjacent land.

With marginal habitat, wildlife corridors are not expected to be impacted by project activities.

3.3.5 WETLANDS AND OTHER JURISDICTIONAL WATERS

A formal USACE aquatic resource delineation was conducted in the PIA. NCE personnel identified Griff Creek, as a potential USACE jurisdictional resource and a State of California jurisdictional feature.

NCE personnel also identified a man-made stormwater basin within the PIA. It is NCE's professional opinion that the man-made stormwater basin is a non-jurisdictional feature as the basin was created in uplands for stormwater management. The man-made stormwater basin is not shown on USGS nor USFWS National Wetland Inventory mapping, and there is a plan set that was approved by the TRPA that depicts the stormwater basin as an existing feature. Due to the USACE not regulating stormwater features created in uplands this man-made stormwater basin is not federally jurisdictional. However, the man-made stormwater basin would be a State of California jurisdictional feature.

3.3.6 REGIONAL SPECIES AND HABITATS AND NATURAL COMMUNITIES OF CONCERN

Special status species databases were reviewed to determine the potential for special status species to occur within the PIA. Databases used in this review are listed in the references section of this document.

Forty-seven special status species with the potential to occur within the BSA were identified. Of those species, suitable habitat for one (1) species occurs within or adjacent to the PIA. **Table 4** lists all species considered as well as their potential to occur within the PIA.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
Plant Species							
<i>Artemisia tripartita</i> ssp. <i>tripartita</i> Threetip sagebrush				2B.3	Perennial shrub that prefers rocky, volcanic soils in open areas of upper montane coniferous forests. Elevation range is between 7,200 and 8,500 feet.	August	Absent. Suitable undisturbed habitat is not present within Project Impact Area. Outside of elevation range.
<i>Carex limosa</i> Mud sedge				2B.2	Perennial rhizomatous herb that prefers bogs, fens, meadows, seeps, marshes, swamps, and both lower and upper montane coniferous forests. Elevation range is between 3,900 and 8,900 feet.	June to August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Ivesia sericoleuca</i> Plumas ivesia				1B.2	Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Vernal mesic, usually volcanic soils. Elevation range 4,200 to 7,300 feet.	May to October	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Rhamnus alnifolia</i> Alder buckthorn				2B.2	This perennial deciduous shrub that prefers lower montane coniferous forest, meadows and seeps, riparian scrub, and upper montane coniferous forest. Elevation 4,400 to 7,000 feet.	May to July	Absent. Suitable undisturbed habitat is not present within Project Impact Area.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Arabis rigidissima</i> var. <i>demota</i> Galena Creek rockcress			SI	1B.2	Broad-leaved upland forests, upper montane coniferous forests on rocky substrates. Known in CA from only two occurrences near Martis Peak and in NV from eleven occurrences in the Carson Range. Elevation range 7,398 to 8,398 feet.	August	Absent. Outside of elevation range and site lacks suitable habitat.
<i>Botrychium ascendens</i> Upswept moonwort				2B.3	Wet or moist soils in lower montane coniferous forests, such as along the edges of lakes and streams. Elevation range 4,950 to 6,039 feet.	Fertile early July to early September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Botrychium crenulatum</i> Scalloped moonwort				2B.2	Lower montane coniferous forests, meadows and seeps, marshes and swamps. Elevation range 4,950 to 10,800 feet.	Fronds mature June to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Botrychium Lunaria</i> Common moonwort				2B.3	Meadows and seeps in subalpine coniferous forests and upper montane coniferous forest. Elevation range 6,495 to 11,155 feet.	Fronds mature August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Botrychium minganense</i> Mingan moonwort				2B.2	Wet or moist soils in lower montane coniferous forests, such as along the edges of lakes and streams. Elevation range 4,950 to 6,039 feet.	Fronds mature June to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Botrychium montanum</i> Western goblin				2B.1	mesic soils in lower and upper montane coniferous forests, in meadows and seeps. Elevation range 4,800 to 7,200 feet.	Fronds mature July to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Carex davyi</i> Davy's sedge				1B.3	Perennial herb that prefers subalpine and upper montane coniferous forests between 5,000 to 10,500 feet.	May to August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Carex lasiocarpa</i> Woolly-fruited sedge				2B.3	Bogs and fens, marshes And swamps (streambanks). 5575 to 6890 feet.	May to June	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Draba asterophora</i> <i>var. asterophora</i> Tahoe draba			SI	1B.2	Alpine boulder and rock fields in crevices, and open talus slopes of decomposed granite in subalpine coniferous forests. Elevation range 8,325 to 11,670 feet.	July to September	Absent. Outside of elevation range.
<i>Draba asterophora</i> <i>var. macrocarpa</i> Cup Lake draba			SI	1B.1	Alpine boulder and rock fields in shade of granitic rocks in subalpine coniferous forest. Elevation range 8,202 to 9,235 feet.	July to August	Absent. Outside of elevation range and site lacks suitable habitat.
<i>Drosera anglica</i> English sundew				2B.3	Bogs and fens, meadows and seeps (mesic). Elevation range 4265 to 7400.	June to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Epilobium oregonum</i> Oregon fireweed				1B.2	Perennial herb that prefers mesic habitat including bogs and fens, but also lower and upper montane coniferous forests. Elevation is between 1,650 and 7,300 feet.	June to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Erigeron eatonii</i> <i>var. nevadincola</i> Nevada Daisy				2B.3	Great basin scrub, lower montane coniferous forest, pinyon and juniper woodland. Elevation range between 4,500 to 9,500.	May to July	Absent. Site lacks suitable habitat.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Eriogonum umbellatum</i> var. <i>torreyanum</i> Donner pass buckwheat				1B.2	Upper montane coniferous forest, meadows and seeps in rocky and volcanic soils. Elevation range between 6,085 and 8,595 feet.	July to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Glyceria grandis</i> American manna grass				2B.3	Perennial rhizomatous herb that prefers bogs, fens, meadows, seeps, marshes, and swamps along stream banks, or lake margins. Elevation range is from 50 to 6,500 feet.	June to August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Ivesia sericoleuca</i> Plumas ivesia				1B.2	Perennial herb that prefers vernal mesic, usually volcanic soils in Great Basin scrub, lower montane coniferous forests, meadows and seeps, and vernal pools. Elevation range 4,000 to 7,200 feet.	May to October	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Juncus luciensis</i> Santa Lucia dwarf rush				1B.2	Chaparral, great basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools. Elevation range 950 to 6,700 feet.	April to July	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Lewisia longipetala</i> Long-petaled lewisia			SI	1B.3	Alpine boulder and rock fields in subalpine coniferous forests. Elevation range 8,325 to 9,740 feet.	June to August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Meesia uliginosa</i> Broad-nerved hump-moss				2B.2	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Phacelia stebbinsii</i> Stebbins' phacelia				1B.2	Annual herb that grows in cismontane woodland, lower montane coniferous forests and meadows and seeps. Elevation range 2,000 to 6,600 feet.	May to July	Absent. Suitable undisturbed habitat is not present within Project Impact Area.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Potamogeton robbinsii</i> <i>Robbins' pondweed</i>				2B.3	This perennial rhizomatous herb prefers marshes and swamps (deep water, lakes). Elevation range 5,000 to 8,530 feet.	July to August	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Rhamnus alnifolia</i> Alder buckthorn				2B.2	Perennial deciduous shrub that prefers lower montane coniferous forests, meadows and seeps, riparian scrub, and upper montane coniferous forests. Elevation range 4,500 to 7,000 feet,	May to July	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Rorippa subumbellata</i> Tahoe yellow cress		SE	SI	1B.1/ SE	Shoreline supporting decomposed granitic soils; known only from the shoreline of Lake Tahoe. Elevation range 6,210 to 6,230 feet.	Blooms May to September	Absent. Outside of elevation range and site lacks suitable habitat.
<i>Scutellaria galericulata</i> Marsh skullcap				2B.2	Perennial rhizomatous herb that prefers lower montane coniferous forests, meadows, seeps, marshes, and swamps. Elevation range from 0 to 6,800 feet.	June to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Sidalcea multifida</i> Cut-leaf checkerbloom				2B.3	Breat basin scrub, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Elevation range from 5,700 to 9,186 feet.	May to September	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
<i>Sphaeralcea munroana</i> Munro's desert mallow				2B.2	Great basin scrub. Elevation range 6,500 to 6,600 feet.	May to June	Absent. Site lacks suitable habitat.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Stuckenia filiformis</i> <i>ssp. alpina</i> Slender-leaved pondweed				2B.2	Perennial rhizomatous herb that prefers marshes, swamps, and a variety of shallow freshwater habitats. Elevation range from 980 to 7,000 feet.	May to July	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
Herptile Species							
<i>Lithobates pipiens</i> Northern leopard frog		SSC			Breeds in a variety of aquatic habitats with abundant aquatic vegetation including slow-moving or still water along streams and rivers, wetlands, permanent or temporary pools, and beaver ponds.	N/A	Absent. This species is presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000). Suitable habitat is not present in the Project Impact Area.
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	FE	ST, WL			Typical habitat includes lakes, ponds, marshes, meadows, and streams at high elevations – typically ranging from about 4,500 to 12,000 feet. Sierra Nevada yellow- legged frogs are highly aquatic. They are rarely found more than 3.3 feet from water. Waters that do not freeze to the bottom and which do not dry up are required for breeding.	N/A	Absent. Suitable undisturbed habitat is not present within Project Impact Area.
Mammal Species							

Table 4 List of Special Status Species Known to Occur in Vicinity of Project

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Apodontia rufa californica</i> Sierra Nevada mountain beaver		SSC			Found throughout the Cascade, Klamath, and Sierra Nevada Ranges. Distribution often is scattered; populations local and uncommon in the Sierra Nevada and other interior areas. Occur in dense riparian-deciduous and open, brushy stages of most forest types. Typical habitat in the Sierra Nevada is montane riparian with a dense understory near water. Deep, friable soils are required for burrowing, along with a cool, moist microclimate (Zeiner et al. 1990).	N/A	Unlikely. Habitat requirements for cover, breeding, and foraging are lacking within the Project Impact Area but are present within 1 mile. Signs of beaver activity were observed in Griff Creek north-east of Project Impact Area during October 2018 field surveys. No beaver habitat is present within Project Impact Area.
<i>Odocoileus hemionus</i> Mule deer			SI		Mule deer have a widespread distribution throughout most of California (CDFW 2018a). Locally, they are common to abundant migrants. Shrubs provide food, cover, and thermoregulation, making them essential habitat criteria. Openings interspersed through dense thickets and abundant edges are preferred. Deer require 3 quarts of water/day/100 lb. (Zeiner et al. 1990), so access to water and mineral licks are also critical features to suitable habitat.	N/A	Unlikely. No Potential to Impact TRPA Threshold Standard. Suitable habitat is located outside the Project Impact Area. Habitat in the Project Impact Area is not suitable for fawning due to existing disturbance levels.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Gulo gulo</i> California wolverine		ST, FP			Extensive wilderness dominated by coniferous forest. Wolverines generally den in areas with snags, downed logs, large hollow trees, or talus.	N/A	Absent. No suitable habitat is present and the only occurrence within the surrounding 4 quads is approximately 8.5 miles away, dated 1953
Fish Species							
<i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout	FT				Cold-water habitats including large terminal alkaline lakes, and alpine lakes, slow meandering rivers, mountain rivers, and small headwater tributary streams.	N/A	Absent. Suitable aquatic habitat is not present within the Project Impact Area.
Bird Species							

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Accipiter gentilis</i> Northern goshawk		SSC	SI		Northern goshawks are distributed throughout California in middle to higher elevation forested areas, particularly in the North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mountains (Zeiner et al. 1990). Locally, they can be yearlong residents and seasonal migrants. Goshawks usually nest on north-facing slopes near water and require mature conifer or aspen forests with large diameter trees, dense canopy cover, and an open under story interspersed with meadows or shrub patches. Open areas provide foraging opportunities, while logs, snags, and broken-top trees are used as "plucking posts" to de-feather prey. Nests are usually located within the largest tree in the stand, next to the bole of the tree, in the lower third of the canopy.	N/A	Unlikely. No Potential to Impact TRPA Threshold Standard. There is a TRPA Northern Goshawk Protected Activity Center outside of the Project Impact Area but within the 1-mile buffer. No improvements are proposed outside of the Project Impact Area and the TRPA Protected Activity Center does not overlap with the project boundary. This species could pass through the Project Impact Area, but suitable breeding habitat is not present in the Project Impact Area.
<i>Aquila chrysaetos</i> Golden eagle	BCC	FP	SI		Partially or completely open terrain around mountains, hills, and cliffs mostly in the western half of the United States. Builds large stick nests, often on cliff faces.	N/A	Unlikely. No Potential to Impact to TRPA Threshold Standard. The Project Impact Area is impacted by human use and suitable habitat is lacking.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Carpodacus cassinii</i> Cassin's finch	BCC				Evergreen forests in mountainous area 3,000 - 10,000 feet elevation. Nesting usually occurs near the top of conifer trees.	N/A	Unlikely. Suitable nesting habitat is absent within Project Impact Area.
<i>Contopus cooperi</i> Olive-sided flycatcher	BCC	SSC			Breeds in montane and northern coniferous forests, at forest edges and openings, such as meadows and ponds.	N/A	Unlikely. Urbanized nature of project area results in relatively low habitat value.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Empidonax traillii</i> Willow flycatcher	BCC	SE			Willow flycatchers are rare to locally uncommon, summer residents in the Sierra Nevada and Cascade Range. In the Sierra Nevada, suitable habitat typically consists of broad, flat meadows that support riparian deciduous shrubs (particularly willows) and retain soil moisture throughout the nesting season (May-July). Three critical habitat components are sufficient meadow size, access to water, and presence of willows. Suitable nesting habitat must have willows (at least 2m high with foliage density of 50-70%) with low, exposed branches present (Sanders and Flett 1989). Generally, willow flycatchers inhabit meadows larger than 20 acres (at 2000-8000 ft. in elevation) and do not typically utilize willow clumps along steep terrain, or narrow bands bordered by conifer forests.	N/A	Absent. Willow flycatcher has very distinct habitat requirements that dictate meadow size, vegetation type, height, and access to water. There is no suitable habitat identified by TRPA within 1 mile of the Project.
<i>Falco peregrinus anatum</i> Peregrine falcon		FP	SI		Breeding occurs in open landscapes with cliffs for nest sites at elevations up to 12,000 feet.	N/A	Absent. Suitable habitat is not present within Project Impact Area.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project							
Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
<i>Haliaeetus leucocephalus</i> Bald eagle	BCC	SE, FP	SI		Bald eagles have an expansive range with breeding areas in Northern California, wintering mostly in the Klamath Basin, and a few favored inland areas of Southern California. Locally, they are yearlong residents and migrants in the Tahoe Basin. Bald eagles use shorelines along large bodies of water and river courses for both nesting and wintering. Snags, broken-topped trees, or rocks near water are required for foraging and nesting. Most nests are located in large trees with open branches within 1 mile of a water body. In Lake Tahoe, known nesting sites include Emerald Bay and Marlette Lake. Wintering sites are located in Taylor, Tallac, Pope, and Upper Truckee Marshes (Romsos 2000)	N/A	Unlikely. No Potential to Impact TRPA Threshold Standard. Suitable habitat does not exist within the project boundary. This species could pass through Project Impact Area, but suitable breeding habitat is not present in the Project Impact Area.
<i>Pandion haliaetus</i> Osprey		WL	SI		Osprey are yearlong residents. Osprey diets are almost entirely fish; therefore, its range has a close association with open, calm, and clear waters for feeding. Platform nests are built atop large snags, living trees, and human structures. Tall, open trees called "pilot trees" are required nearby for landing approaches and flight practice for fledglings.	N/A	Unlikely. No Potential to Impact TRPA Threshold Standard. Osprey could pass through the project area, but suitable breeding and foraging habitat is not present in the Project Impact Area.

Table 4 List of Special Status Species Known to Occur in Vicinity of Project

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Impact Area and Results of Survey
	Federal	State	TRPA	CNPS			
Waterfowl (collectively)			SI		Mallards and other waterfowl are found throughout California in wetlands and waters such as lakes, creeks, drainages, marshes, and wet meadows. Locally, some species such as mallards are common, yearlong residents. While breeding, they need shallow-water areas with nest sites nearby. Usually nests in fairly dry sites in tall, dense herbaceous vegetation or low shrubbery within 300 feet of water, rarely up to 5 miles (Bellrose 1976).	N/A	Unlikely. No Potential to Impact TRPA Threshold Standard. TRPA designated Wildlife Habitat for Waterfowl is not located within the Project Impact Area. Waterfowl were observed in the Griff Creek retention basins during the October 31 survey, but existing disturbances and lack of suitable habitat make it unlikely they would nest in the Project Impact Area.
<i>Sphyrapicus thyroideus</i> Williamson's sapsucker	BCC				Breeding habitat is open forested areas with conifers. Nests within tree cavities.	N/A	Possible. Trees in project area could host a nest which are cavities in aspen, pine or fir. Or support foraging.

Natural Environment Study

<p>Present: Species observed on the sites at time of field surveys or during recent past.</p> <p>Possible: Species not observed on the sites, but it could occur there from time to time.</p> <p>Unlikely: Species not observed on the sites, and is not be expected to occur there except, perhaps, as a transient.</p> <p>Absent: Species not observed on the site and precluded from occurring there because habitat requirements not met.</p>	<p>Federally Listed Species (Federal): FE = Federally Endangered FT = Federally Threatened FD = Federally Delisted PT = Proposed Threatened FCE = Federally Endangered Candidate FPD = Proposed for Delisting BCC = Bird of Conservation Concern</p> <p>Tahoe Regional Planning Agency (TRPA): SI = TRPA Special Interest Species</p>	<p>California State Listed Species (CA): SE = State Endangered ST = State Threatened SCT = State Candidate Threatened SR = State Rare SC = State Candidate WL = CDFW Watch List SSC = CDFW Species of Special Concern FP = CDFW Fully Protected</p>	<p>California Native Plant Society (CNPS) List Categories: 1 = Rare in California and elsewhere 2 = Rare in California, but not elsewhere A = Presumed extirpated or extinct B = Rare, threatened, or endangered 3 = Plants about which we need more information 4 = Plants of limited distribution</p> <p>CNPS Threat Code Extensions: .1 = Seriously endangered in California (Over 80% of occurrences threatened) .2 = Fairly endangered in California (20-80% occurrences threatened) .3 = Not very endangered in California (<20% of occurrences threatened)</p>
<p>Sources: CDFW 2018, TRPA 2019, USFWS 2018</p>			

Chapter 4 – Results: Biological Resources. **Discussion of Impacts and Mitigation**

4.1 Habitats and Natural Communities of Special Concern

Habitats are of special concern based on (1) federal, state, and local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. None of the plant communities in the Project Impact Area qualify as Natural Communities of Special Concern (Sawyer et al. 2009). Aquatic resources (which includes wetlands) are also considered sensitive by both federal and state agencies and are discussed in Section 3.1.3.5.

4.1.1 IMPACTS TO RIPARIAN HABITAT

Riparian habitat exists within the Project Impact Area near Griff Creek. Griff Creek is a perennial creek with Ordinary High Water Mark indicators. No impacts are proposed at Griff Creek and its associated riparian habitat.

Project Impacts

No proposed impacts are anticipated at Griff Creek or its riparian habitat.

Avoidance and Minimization Efforts

TRPA-approved temporary BMPs will be utilized during construction to minimize any disturbance due to project construction.

Compensatory Mitigation

No compensatory mitigation is required.

Cumulative Impacts

No cumulative impacts are anticipated.

4.2 Special Status Plant Species

A total of 27 plant species are known to occur within a nine-quad search in the vicinity of the Project Impact Area based on historical documentation in the California Natural Diversity Database and the California Native Plant Society's Rare Plant Inventory (**Table 4**). Of those species, zero (0) have the potential to occur within the Project Impact Area itself due to the absence of suitable habitat within or adjacent to the Project Impact Area.

No special status plant species were identified during field surveys. Based on the urbanized nature and history of ground disturbance within the Project Impact Area, special status plant species are absent from Project Impact Area. No project impacts to special status plants are anticipated so avoidance and minimization measures and compensatory mitigation are not required.

4.3 Special Status Animal Species Occurrences

Of the nine special status animal species with the potential to occur within or adjacent to the PIA, only Williamson's sapsucker (*Sphyrapicus thyroideus*) has the potential to occur and breed within the Project Impact Area (**Table 4**). Avoidance and minimization measures detailed in section 4.1.1 above will ensure that the proposed project will not impact this species.

Avoidance and Minimization Efforts

If vegetation removal or ground disturbance near potential migratory bird nesting habitat is proposed during the nesting season (typically February 1 through September 1), a survey for active bird nests shall be conducted by a qualified biologist no more than two weeks prior to initiation of these activities. If nests are identified, then avoidance, minimization, or other mitigation measures must be implemented.

Since special status animal species are not anticipated to be present within the PIA, compensatory mitigation is not required.

Chapter 5 – Conclusions and Regulatory Determinations

5.1 Consultation Summaries:

Federal Endangered Species Act Consultation Summary

Based on the analysis provided in this document, the proposed project will have no effect on federally listed plant or wildlife species or designated critical habitat.

Essential Fish Habitat Consultation Summary

This project is located outside of NOAA Fisheries jurisdiction; therefore, a NOAA Fisheries species list is not required and no effects to NOAA Fisheries species are anticipated.

California Endangered Species Act Consultation Summary

Based on the analysis in this document, the proposed project will have no effect on state listed plant or wildlife species. The project will have no effect on natural communities of special concern.

Wetlands and Other Waters Coordination Summary

A formal aquatic resource delineation was conducted within the PIA (10.47 acres). Griff Creek, a perennial drainage that flows directly into Lake Tahoe, was identified as a potentially jurisdictional aquatic resource. Approximately 0.03 acres of Griff Creek is present within the PIA. NCE also delineated a man-made stormwater basin. This feature is proposed as non-federally jurisdictional for it is a man-made stormwater feature created in uplands, and the USACE does not regulate stormwater features created in uplands. The man-made stormwater basin is approximately 0.04 acres in size. It is NCE's professional opinion that the man-made stormwater basin is a waters of the State of California.

A USACE Aquatic Resources Delineation Report has been submitted to the USACE requesting an Approved Jurisdictional Determination.

There are no proposed impacts to Griff Creek or its associated riparian habitat, however the man-made stormwater basin will be impacted. The following permits will be required for Project impacts to the man-made stormwater basin:

- CWA Section 401, Water Quality Certification; and
- A Report of Waste Discharge.

5.2 Invasive Species

Four (4) invasive weeds were identified within the Project Impact Area: cheatgrass (*Bromus tectorum*), curly dock (*Rumex crispus*), mullein (*Verbascum Thapsus*), plantain (*Plantago lanceolata*). According to the California Invasive Plant Council, cheatgrass is rated as "High," and wooly mullein, curly dock, and plantain are rated as "limited".

The following weed best management practices will be implemented in order to prevent the introduction of new noxious weeds during Project activities:

- All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control or landscaping shall be free of noxious weed seeds and propagules. Noxious weeds are defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds.
- All equipment brought to a project site for construction shall be thoroughly cleaned of all dirt and vegetation prior to entering the site in order to prevent importing noxious weeds.
- All materials brought to a project site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weed seeds and propagules.

5.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. California Fish and Game (CDFG) Code (Section 3500) also prohibits the destruction of any nest, egg, or nestling. If vegetation removal or construction occurs during the nesting season (typically February 1 through September 30) then a survey for active bird nests shall be conducted by a qualified biologist no more than two weeks prior to initiation of construction activities. If nests are identified, then avoidance and minimization measures will be implemented and further consultation may be required.

Chapter 6 – References

Audubon Guide to North American Birds <http://www.audubon.org/field-guide/bird> Accessed 3/22/2019.

Bellrose, F. C., & Kortright, F. H. (1976). *Ducks, geese & swans of North America: A completely new and expanded version of the classic work by F.H. Kortright*. Harrisburg, Pa: Stackpole Books. National Resource Conservation Service, Soil Web Survey. <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> Accessed 3/5/2019.

Romsos, S. (2000). "Species Accounts for Select Focal Species: bald eagle." in: *Lake Tahoe Watershed Assessment, App. O*. Knopp and D. Murphy, eds. PWS-GTR-175, Vol. 2(G). USDA Forest Service Pacific Southwest Research Station, Albany, CA.

Sanders, S. D., and M. A. Flett. (1989). *Ecology of the Sierra Nevada population of willow flycatcher (Empidonax traillii)*, 1986-1987. California Department of Fish and Game.

Sawyer, J.O., T. Keeler-Wolf, and J Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society, Sacramento, CA

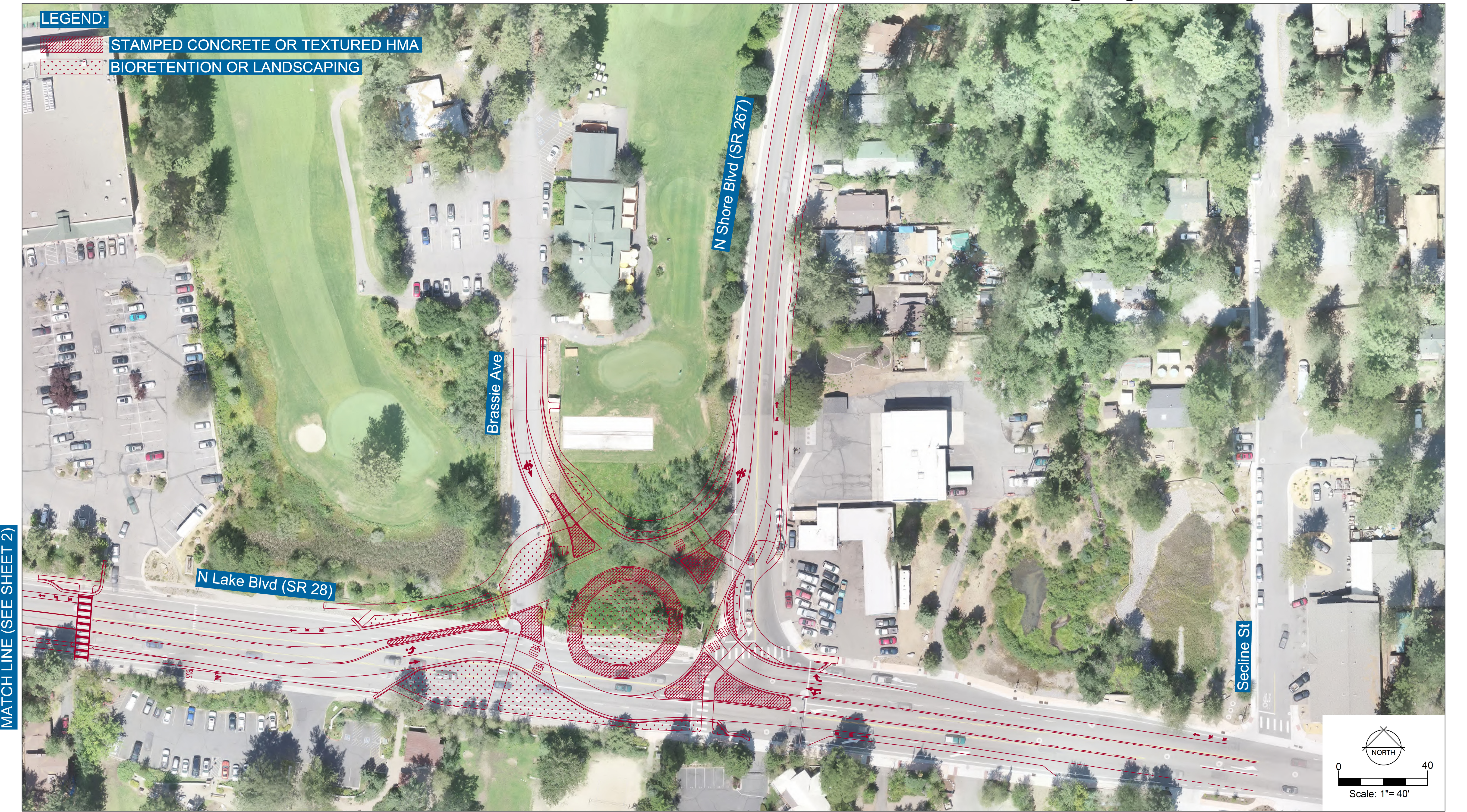
Schlesinger, M. D., and J. S. Romsos. 2000. Vertebrate species of the Lake Tahoe Basin. Pages G1-G15 in D. D. Murphy and C. M. Knopp, editors. Lake Tahoe Watershed Assessment: Volume II. Appendixes. USDA Forest Service General Technical Report PSW-GTR-176.

Western Regional Climate Center, Tahoe City, California (048758). <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8758> Accessed 3/5/2019

Zeiner, D., Laudenslayer, W., Mayer, K., and White, M. (1990). *California Wildlife*. CDFW, Sacramento, CA.

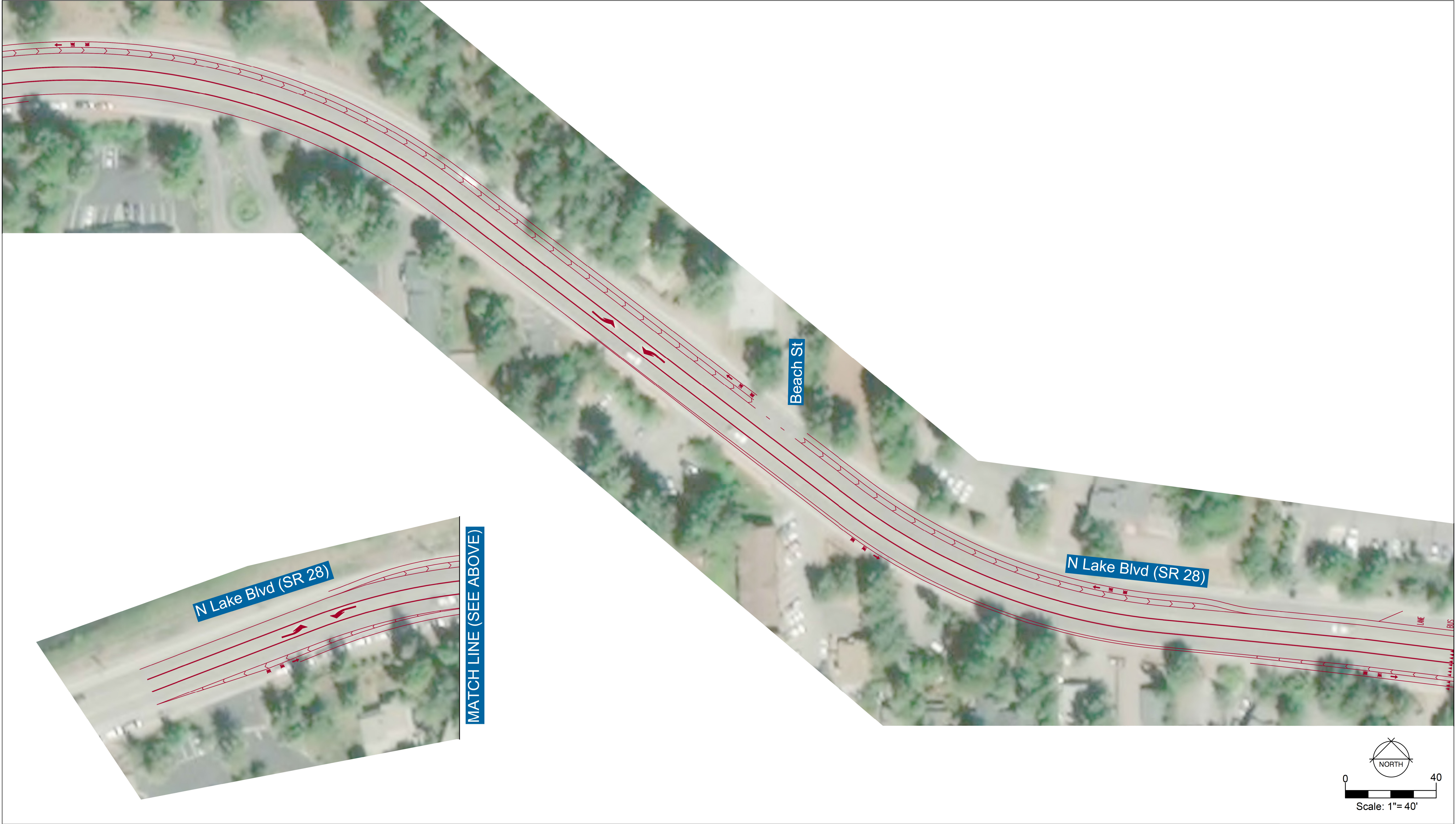
Appendix A – Construction Plans

Alternative 3: Four Leg Hybrid Roundabout



Alternative 3: Four Leg Hybrid Roundabout

MATCH LINE (SEE BELOW)



MATCH LINE (SEE ABOVE)

MATCH LINE (SEE SHEET 1)

Appendix B – Figures 1 – 3



Legend

- Project Impact Area
- Staging Area



Kings Beach Western Approach

Project Area Map



1 in. = 600 ft.



FIGURE

1

SOURCE
USGS Topographic Data

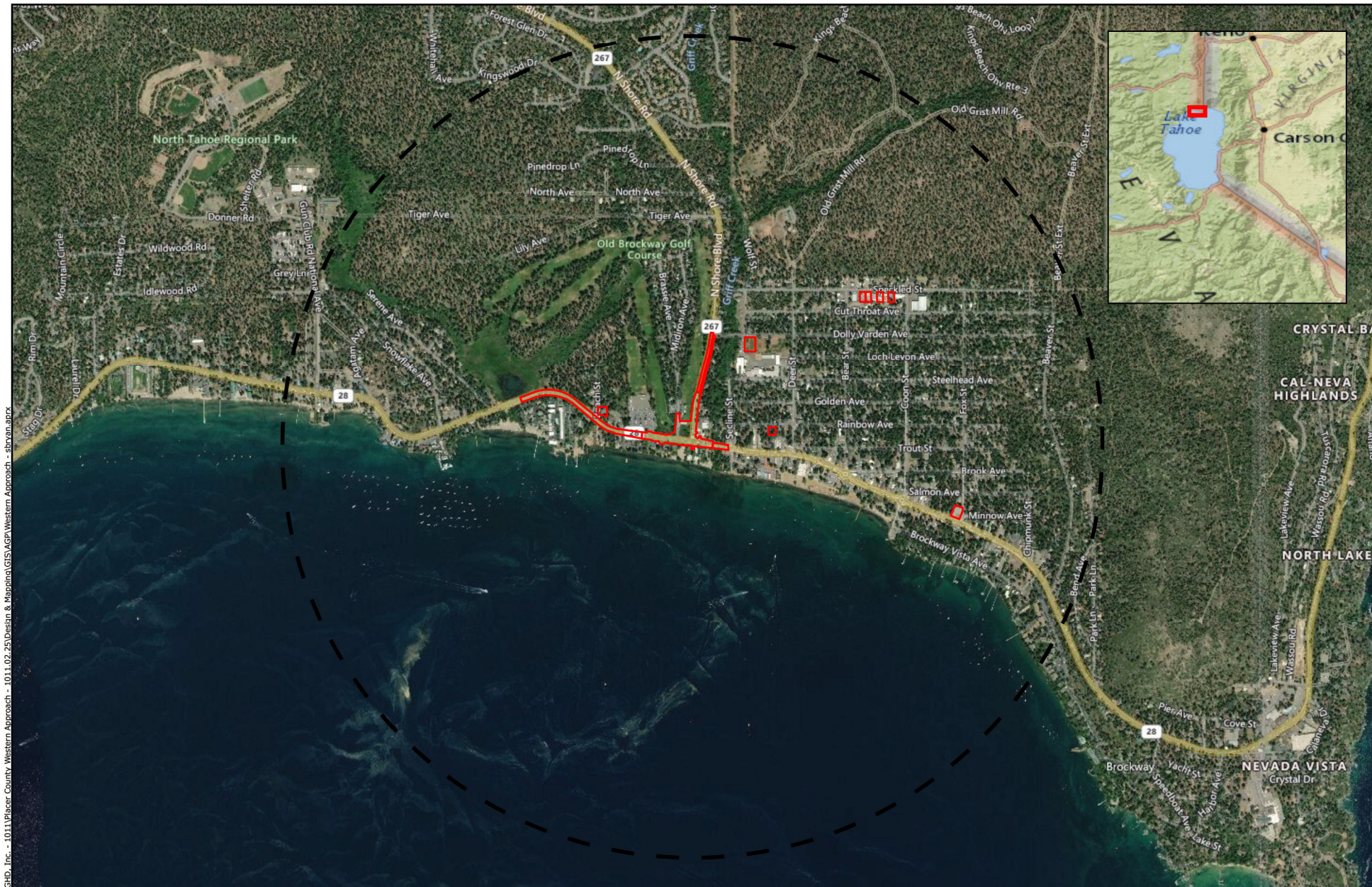
JOB NUMBER
1011.02.25



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sbryan

DATE
7/22/2019

REVISED
7/23/2019

APPROVED
drios



<div><div>Legend</div><div><div><div></div><div>Project Impact Area</div></div><div><div></div><div>1 Mile Radius Around Project Impact Area</div></div></div></div>	<div><div><div><div>NCE</div><div></div></div></div><div><div>Kings Beach Western Approach Intersection Improvement</div><div>Biological Study Area (BSA)</div></div></div>	<div><div><div><div>N</div><div></div></div></div><div><div>1 in. = 1,750 ft.</div><div><div>0</div><div>875</div><div>1,750</div><div>ft.</div></div></div></div>	<div><div>FIGURE</div><div>2</div></div>		
<div><div>SOURCE</div><div>Bing Aerial Basemap; NCE 2019</div></div>	<div><div>JOB NUMBER</div><div>1011.02.25</div></div>	<div><div>DRAWN</div><div>sbryan</div></div>	<div><div>DATE</div><div>7/16/2019</div></div>	<div><div>REVISED</div><div>7/23/2019</div></div>	<div><div>APPROVED</div><div>drios</div></div>



Kings Beach Western Approach CWHR Type (Vegetation Communities)

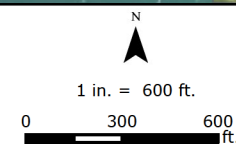


FIGURE
3

SOURCE
Bing Aerial Hybrid; California Wildlife Habitat Relationships Dataset

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1011.02.25

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7/22/2019

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Appendix C – USFWS, CDFW, CNPS Special Status Species Lists

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
North American Wolverine <i>Gulo gulo luscus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9529	Endangered

Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/233/office/14320.pdf	Threatened

California Natural Diversity Database (CNDDB) Commercial [ds85]

Scientific Name	Common Name	Element Code	Occ Number	MAPNDX	EONDX	Key Quad Code	Key Quad Name	Key County Code	Accuracy	Presence	Occ Type	Occ Rank	Sensitive	Site Date	Elm Date	Owner Management	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Other Status	Symbology	Taxon Group
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	slender-leaved pondweed	PMPOT03091	10	50807	50807	3912021	Kings Beach	NVS	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19310617	19310617	UNKNOWN	None	None	G5T5	S2S3	2B.2			104	Monocots
<i>Lithobates pipiens</i>	northern leopard frog	AAABH01170	10	73692	74664	3912021	Kings Beach	PLA	2/5 mile	Presumed Extant	Transplant Outside of Native Hab./Range	Unknown	N	19340629	19340629	UNKNOWN	None	None	G5	S2		SSC	IUCN_LC	204	Amphibians
<i>Carex lasiocarpa</i>	woolly-fruited sedge	PMCYP03720	11	75687	76712	3912021	Kings Beach	PLA	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	20020711	20020711	UNKNOWN	None	None	G5	S2	2B.3			104	Monocots
<i>Rorippa subumbellata</i>	Tahoe yellow cress	PDBRA270M0	20	14324	13408	3912021	Kings Beach	PLA	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	20090910	2002XXXX	UNKNOWN	None	Endangered	G1	S1	1B.1		SB_BerrySB; SB_RSABG; USFS_S	103	Dicots
<i>Erethizon dorsatum</i>	North American porcupine	AMAFJ01010	284	A5364	107099	3912021	Kings Beach	PLA	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	20130515	20130515	USFS-LAKE TAHOE BMU, PVT	None	None	G5	S3			IUCN_LC	204	Mammals
<i>Capnia lacustra</i>	Lake Tahoe benthic stonefly	IIPLE03200	1	B4150	13170	3912011	Meeks Bay	PLA	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	1999XXXX	19940314	STATE	None	None	G1	S1				803	Insects
<i>Helisoma newberryi</i>	Great Basin rams-horn	IMGASM6020	4	B4150	57934	3912011	Meeks Bay	PLA	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	XXXXXXX	XXXXXXX	STATE	None	None	G1	S1S2			USFS_S	803	Mollusks
<i>Stygobromus tahoensis</i>	Lake Tahoe stygobromid	ICMAL05A70	1	B4150	89183	3912011	Meeks Bay	PLA	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	200909XX	200909XX	STATE	None	None	G1	S1				803	Crustaceans
<i>Stygobromus laticolus</i>	Lake Tahoe amphipod	ICMAL05970	1	B4150	89185	3912011	Meeks Bay	PLA	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	200909XX	200909XX	STATE	None	None	G1	S1				803	Crustaceans

*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

23 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3912021, 3912031, 3912011, 3912022, 3912032 and 3912012;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Arabis rigidissima var. demota	Galena Creek rockcress	Brassicaceae	perennial herb	Jul-Aug	1B.2	S1	G3T3Q
Artemisia tripartita ssp. tripartita	threetip sagebrush	Asteraceae	perennial shrub	Aug	2B.3	S2	G5T4T5
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	2B.3	S2	G3G4
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S3	G4
Botrychium minganense	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	2B.2	S3	G4G5
Botrychium montanum	western goblin	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	2B.1	S2	G3
Carex davyi	Davy's sedge	Cyperaceae	perennial herb	May-Aug	1B.3	S3	G3
Carex lasiocarpa	woolly-fruited sedge	Cyperaceae	perennial rhizomatous herb	Jun-Jul	2B.3	S2	G5
Carex limosa	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	2B.2	S3	G5
Epilobium oreganum	Oregon fireweed	Onagraceae	perennial herb	Jun-Sep	1B.2	S2	G2
Erigeron eatonii var. nevadincola	Nevada daisy	Asteraceae	perennial herb	May-Jul	2B.3	S2S3	G5T2T3
Eriogonum umbellatum var. torreyanum	Donner Pass buckwheat	Polygonaceae	perennial herb	Jul-Sep	1B.2	S2	G5T2
Glyceria grandis	American manna grass	Poaceae	perennial rhizomatous herb	Jun-Aug	2B.3	S3	G5
Ivesia sericoleuca	Plumas ivesia	Rosaceae	perennial herb	May-Oct	1B.2	S2	G2
Juncus luciensis	Santa Lucia dwarf rush	Juncaceae	annual herb	Apr-Jul	1B.2	S3	G3
Phacelia stebbinsii	Stebbins' phacelia	Hydrophyllaceae	annual herb	May-Jul	1B.2	S3	G3
Potamogeton epihydrus	Nuttall's ribbon-	Potamogetonaceae	perennial	(Jun)Jul-	2B.2	S2S3	G5

	leaved pondweed		rhizomatous herb (aquatic)	Sep			
<u>Potamogeton robbinsii</u>	Robbins' pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Jul-Aug	2B.3	S3	G5
<u>Rhamnus alnifolia</u>	alder buckthorn	Rhamnaceae	perennial deciduous shrub	May-Jul	2B.2	S3	G5
<u>Rorippa subumbellata</u>	Tahoe yellow cress	Brassicaceae	perennial rhizomatous herb	May-Sep	1B.1	S1	G1
<u>Scutellaria galericulata</u>	marsh skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S2	G5
<u>Sphaeralcea munroana</u>	Munro's desert mallow	Malvaceae	perennial herb	May-Jun	2B.2	S1	G4
<u>Stuckenia filiformis ssp. alpina</u>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5

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Questions and Comments

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