DRAFT

DRAFT INITIAL STUDY/ NEGATIVE DECLARATION

ANTONE DAM REMOVAL AND MEADOW RESTORATION PROJECT BURTON CREEK STATE PARK

December 2019

State of California
Department of Parks and Recreation
Sierra District, Resources Office
Tahoe City, California

NEGATIVE DECLARATION

PROJECT: **ANTONE DAM REMOVAL AND MEADOW RESTORATION PROJECT**

LEAD AGENCY: California State Parks

AVAILABILITY OF DOCUMENTS: The Initial Study for this Negative Declaration is available for review at:

- Sierra District Headquarters
  California State Parks
  7360 West Lake Blvd.
  Tahoma, CA 96142

- Truckee Library
  10031 Levon Ave.
  Truckee, CA 96161

- California State Parks Internet Website *https://www.parks.ca.gov/?page_id=981*

PROJECT DESCRIPTION:

California State Parks proposes to remove the existing compromised Antone Dam, at Burton Creek State Park and construct in-stream features to stabilize the Burton Creek channel profile. In-stream features consist of the construction of cobble-boulder sills, a new floodplain surface and removal of berms along the meadows edge to improve stream and meadow functions and values. All areas will be revegetated with native species. These actions will result in decreased erosion and increased sediment deposition, benefitting water quality as well as riparian habitat.

A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Negative Declaration may be addressed to:

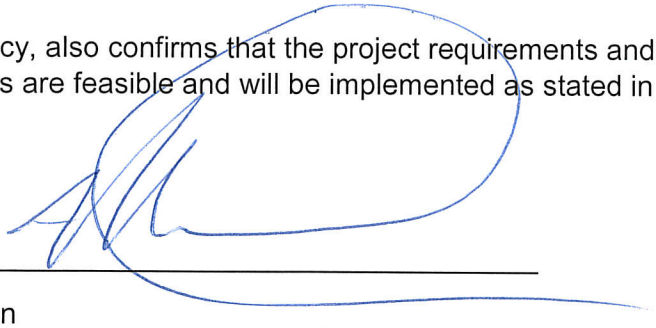
Cyndie Walck

California State Parks

cyndie.walck@parks.ca.gov

Pursuant to Section 21082.1 of the California Environmental Quality Act, California State Parks (CSP) has independently reviewed and analyzed the Initial Study and Draft Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of CSP. CSP, as

lead agency, also confirms that the project requirements and avoidance measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.

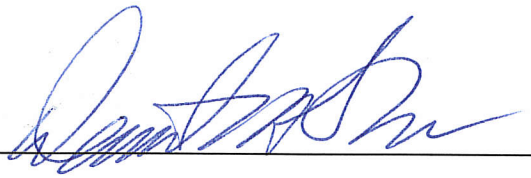


10-25-19

Matt Green

Date

District Superintendent (Acting)



11-14-2019

Dan Shaw

Date

Environmental Coordinator

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CHAPTER 1
INTRODUCTION

1.1 Introduction and Regulatory Guidance

The Initial Study/Negative Declaration (IS/ND) has been prepared by California State Parks (CSP) to evaluate the potential environmental effects of the proposed Antone Dam Removal and Meadow Restoration Project at Burton Creek State Park, Placer County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq*., and the California Code of Regulations (CCR) §15000 *et seq*.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/ND conforms to the content requirements under CEQA Guidelines §15071.

1.2 Lead Agency

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is CSP. The contact person for the lead agency regarding specific project information is Cyndie Walck.

Questions or comments regarding this Initial Study/Negative Declaration should be submitted to:

Cyndie Walck
California Department of Parks & Recreation
Sierra District Resources Office
P.O. Box 266
Tahoma, CA 96142

E-mail Address: cyndie.walck@parks.ca.gov
Include “Antone Dam Removal and Meadow Restoration Project” on the subject line
Fax Number: 530-525-3346

Submissions must be in writing and postmarked or received by fax or email no later than January 7, 2020. The originals of any faxed document must be received by regular mail within

ten working days following the deadline for comments, along with proof of successful fax transmission. Email or fax submissions must include full name and address. All comments will be included in the final environmental document for this project and become part of the public record.

1.3 Purpose and Document Organization

The purpose of this document is to evaluate the potential environmental effects of the proposed Antone Dam Removal and Meadow Restoration Project at Burton Creek State Park. Avoidance and minimization measures have also been incorporated into the project to reduce or minimize impacts when feasible.

This document is organized as follows:

- Chapter 1 - Introduction

  This chapter provides an introduction to the project and describes the purpose and organization of this document.

- Chapter 2 - Project Description

  This chapter describes the reasons for the project, scope of the project, and project objectives.

- Chapter 3 - Environmental Setting, Impacts, and Mitigation Measures

  This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Mitigation or avoidance and minimization measures are incorporated, where appropriate, to reduce potentially significant impacts to a less than significant level.

- Chapter 4 - Mandatory Findings of Significance

  This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.

- Chapter 5 - Summary of Mitigation Measures

  This chapter summarizes the mitigation measures incorporated into the project as a result of the Initial Study.

- Chapter 6 - References

  This chapter identifies the references and sources used in the preparation of this IS/ND.

- Chapter 7 - Report Preparation

  This chapter provides a list of those involved in the preparation of this document.

1.4 Summary of Findings

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project.

Based on the Initial Study and supporting environmental analysis provided in this document, the proposed Antone Dam Removal and Meadow Restoration Project will result in less than significant impacts for the following issues: aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities and service systems. The project would have no impact on: agricultural and forest resources, cultural, tribal cultural resources, energy, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire.

In accordance with §15064(f) of the CEQA Guidelines, a ND shall be prepared if the proposed project will not have a significant effect on the environment. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that the proposed project would have a significant effect on the environment.

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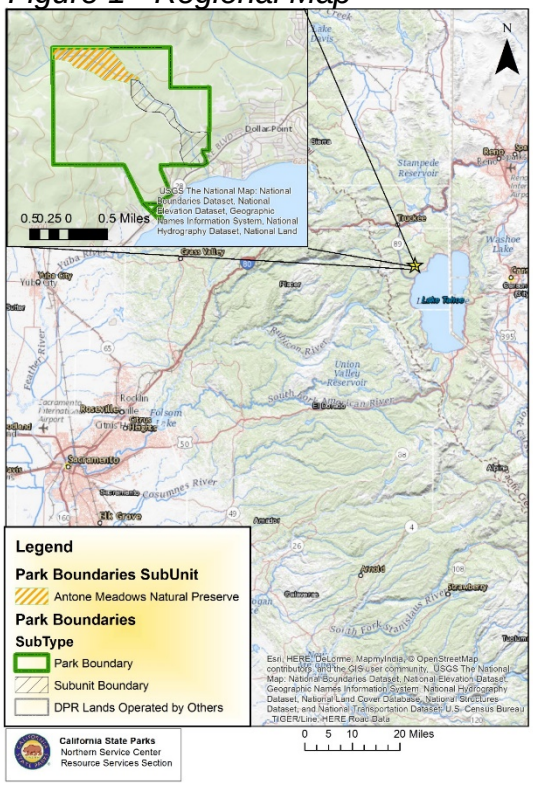
CHAPTER 2
PROJECT DESCRIPTION

2.1 Introduction

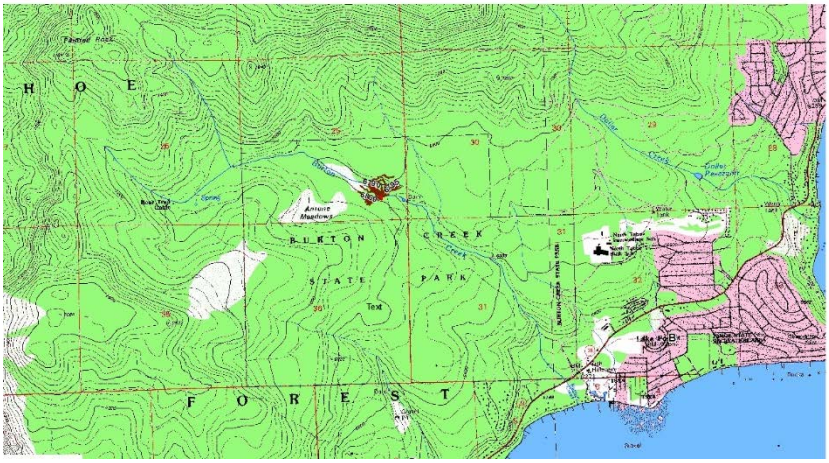
This Initial Study/Negative Declaration (IS/ND) has been prepared by the California State Parks (CSP) to evaluate the potential environmental effects of the proposed Antone Meadows Dam Removal and Meadow Restoration Project at Burton Creek State Park, located near Tahoe City, in Placer County, California. The proposed project will restore geomorphic function and form to Antone Meadows by removing the existing compromised dam and a portion of the pipe infrastructure. This restoration of the meadow and stream channel will increase the area of floodplain and associated habitat.

Figure 1 - Regional Map



2.2 Project Location

Figure 2 - Location Map



Burton Creek State Park is located just north of Tahoe City in Placer County, California (Figures 1 and 2 – Regional Map and Location Map). The park lies uphill, northwest of the north shore of Lake Tahoe.

Antone Meadows is located along Burton Creek in the northwest area of the park. The dam is located at the downstream end of the meadow, where a pipe diverts the streamflow. The creek continues downstream through the park and then flows into Lake Tahoe. The project area encompasses approximately 0.9 acre of the lower Antone Meadows, in Section 25 T16N R16E.

2.3 Background and Need for the Project

A dam was constructed on Burton Creek at the downstream end of Antone Meadows to store water for a pre-1914 water right that is now held by the Tahoe City PUD (TCPUD 2015), creating a small pond. A pipe at the dam diverts water to the TCPUD golf course. In low flow conditions, the pipe diverts the entirety of the flow, leaving the creek dry. The Antone Dam is comprised of a concrete sill measuring sixty eight (68) feet across, two (2) feet wide, and on average is approximately four (4) feet high. The dam was constructed at a natural grade break in the valley between the very low gradient broad valley meadow upstream and the rocky, steeper and narrower valley downstream. Recent field observations have verified leaks from both the face and beneath the dam and there is a well-developed side channel that has eroded around the southern end of the dam, with risk of failure (Figure 3).

Figure 3 - Dam and End-run Erosion

The TCPUD is interested in relocating their water right to Lake Tahoe, which would then allow CSP to remove the dam. The purpose of this project is to remove the existing compromised dam on Burton Creek, restore the meadow wetland and a portion of the creek upstream of the dam within the Burton Creek Natural Preserve. Additional project elements include the construction of a rock step pool transition to tie the restored meadow to the downstream channel.

2.4 Project Objectives

The mission of CSP is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality

recreation. The goal of this project is to remove the dam and restore geomorphic function and form to the meadow and channel.

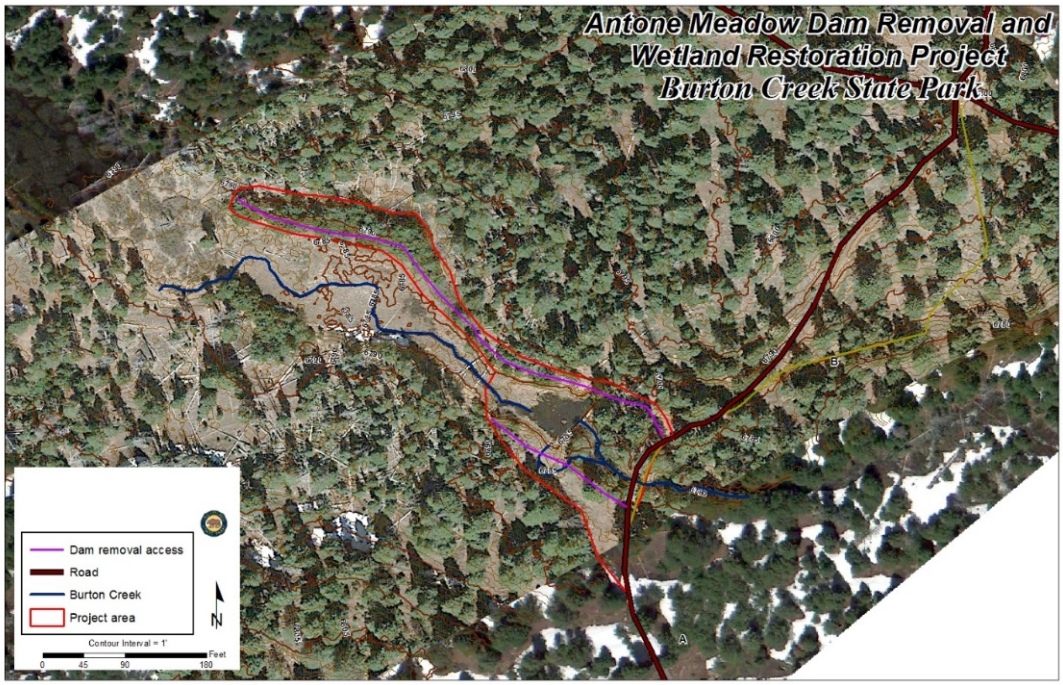
The objectives of the proposed Antone Dam Removal and Meadow Restoration Project are to:

- Remove Antone Dam and some of the associated pipe infrastructure in the vicinity of the dam
- Provide a stable transition across the reservoir footprint from the relatively flat meadow on the upstream side to a relatively steep channel on the downstream side
- Remove fill to re-expose historical meadow surfaces
- Select treatments that are functionally appropriate and blend in with the natural surroundings

2.5 Project Description

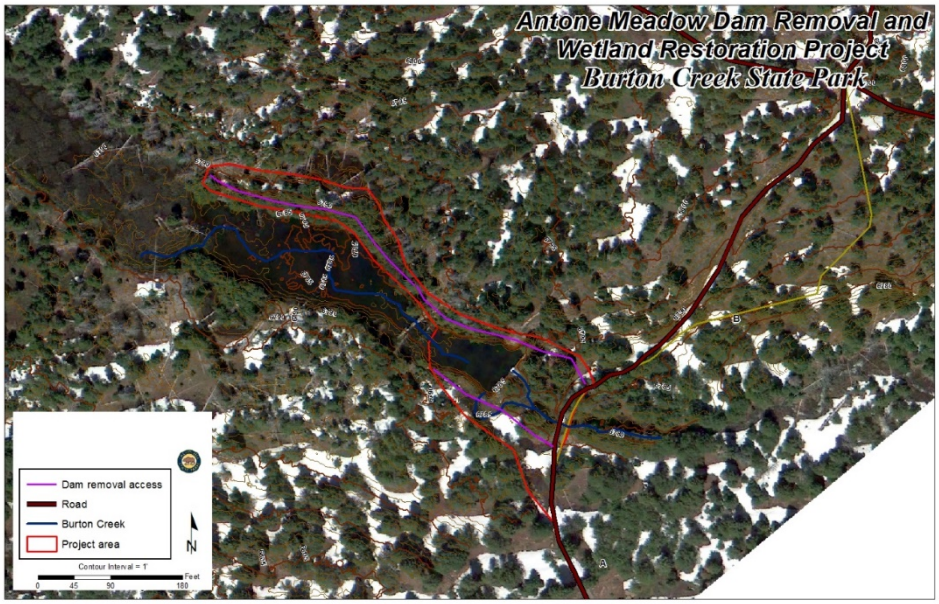
The project is to remove Antone Dam and restore geomorphic function and form to the meadow and channel. The dam is made of concrete and is approximately sixty (60) feet long, two (2) feet wide and four (4) feet tall. It was constructed at a natural grade break in the valley between the very low gradient broad valley meadow upstream and the rocky, steeper and narrower valley downstream. There is a caged intake that feeds the diversion pipe located in the pool by the dam. The excavated pool extends approximately one hundred (100) feet upstream from the dam in low water (Figure 4). A remnant channel is present from approximately 150 feet upstream of the channel, extending up valley. The project area is shown in red (approx. 0.9 acres), and purple.

Figure 4 - Low Pool Aerial Image



The backwater from the dam extends approximately four hundred (400) feet upstream in high water (Figure 5), submerging the meadow vegetation and channel.

Figure 5 - High Pool Aerial Image

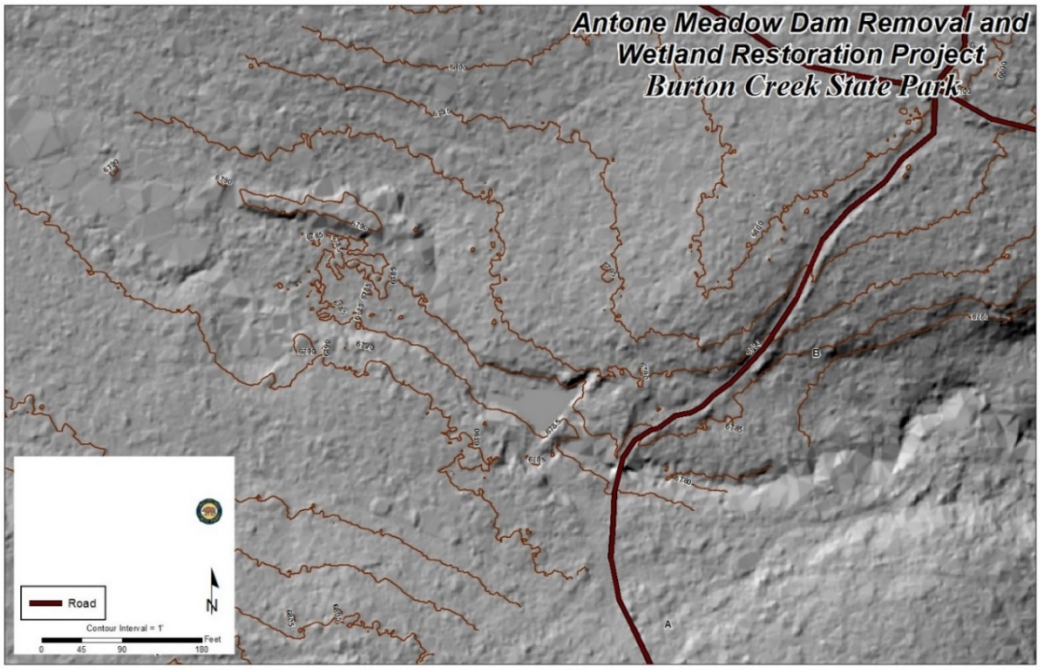


In low water, the pool only extends about one hundred (100) feet and the intake cage and low water channel are exposed (Figure 6).

Figure 6 - Exposed Intake Cage at Low Water

The meadow is flanked by berms, with the larger berm located on the north bank, as depicted on the lidar bare earth image (Figure 7). The berm is overgrown with a dense thicket of lodgepole pine. The north berm will be removed and the material will be sorted for reuse (soils and root wads). Removal of the northern berm will allow reconnection of the isolated wetland north of the berm with the main meadow.

Figure 7 - Lidar Bare Earth Image of Antone Meadows



The project will remove the concrete dam to six (6) inches below finished grade. A step pool cobble-boulder structure will be constructed, extending approximately one hundred fifty (150) feet upstream and fifty (50) feet downstream of the dam. The structure will recreate the natural valley grade break, and will control the water level at existing levels. This will ensure that the meadow upstream remains saturated but not drowned. The excavated pool area upstream of the dam will fill to meadow elevation to reconstruct the floodplain. A channel will be constructed to tie the upstream remnant channel above the dam to the downstream step pool channel, tying in just upstream of the bridge. The meadow floodplain will be revegetated with native sod plugs.

Short temporary roads will be constructed on both sides of the channel for access, and will tie into the existing road system adjacent to the bridge. The open parking area on the south side of the bridge will be used for staging. Temporary dewatering of Burton Creek will be required as part of this project.

2.6 Project Implementation

The attached design drawings show the locations of proposed restoration elements. The restoration design relies heavily on the use of natural materials (logs and boulders) for treatments that will blend in with the natural environment and are consistent with the Department Operations Manual.

Dam Removal

The existing dam will be removed to approximately six (6) inches below proposed finished grade. The materials will be hauled off-site and disposed of at a landfill. Temporary dewatering of Burton Creek will be required as part of this project.

Meadow Restoration – Boulder Sills and Log Vanes

After Antone Dam is removed, the Meadow restoration process will begin. The reservoir footprint will be stabilized to prevent long-term damage from channel incision into Antone Meadows. The dam was constructed at a natural grade break where Burton Creek transitions from a low-energy, meadow environment with a wide floodplain to a steep, confined channel. The restoration will recreate that transition, providing a stable transition over the reservoir area.

A channel will be constructed over the reservoir area with a series of buried grade control features to maintain the slope. Fill material will be placed within the reservoir area to raise the existing low point in the pool to extend the meadow surface downstream to the current dam location. Any soil resulting from grading activities and berm removal will be used as backfill. If additional soil is required, certified weed free soil may be imported. A low flow channel will be graded within the extended meadow surface; the channel will be three (3) to five (5) feet wide by one (1) foot deep with steep side slopes. The channel dimensions are based on bankfull channel measurements of Burton Creek upstream of Antone Dam.

Both rock and log based structures will be incorporated throughout the low flow channel to provide long-term stability. Approximately four cobble-boulder sills are proposed to maintain the overall slope and prevent a headcut from migrating into the meadow. The sills will extend the entire width of the floodplain and will be keyed into the side slopes of the floodplain. The boulders will not be visible on the surface, with the exception of boulders placed within the low flow channel. Boulders will be roughly two (2) feet in diameter and will include smaller cobble and “chinking” rocks as filter material to keep rocks in place. Although a few boulders can be salvaged from on site, the majority of this material will be imported. The number and spacing of sills were based on limiting the vertical drop between sills to approximately ½ to ¾ foot, or no more than one-half of the boulder diameters [roughly one (1) foot]. By doing so, each sill will be backwatered by the next sill, and will be located at the upstream and downstream ends of the low flow channel to provide stable transitions.

In addition to the boulder sills, log vane structures are included between the rock structures in the design to provide additional channel stabilization between sills and increase channel complexity. Fallen trees are part of the landscape at Antone Meadows. Each log vane

consists of two logs with rootwads attached. Log vanes will be installed across the channel bed and embedded into the adjacent floodplain. The logs are anchored by buried boulders and by sealing their rootwads into the floodplain soils. It is possible that suitable logs will be harvested from the berm removal area or clearing and grubbing operations, however, logs may need to be imported from off-site.

Existing riparian vegetation will be avoided where possible or transplanted where possible to maximize utilization of mature riparian vegetation. Additional native vegetation materials and seed will be collected on-site or at similar sites for revegetation.

Berm Removal

A berm located upstream of Antone Dam is composed of spoils related to excavation of the reservoir, and is currently covered by a lodgepole thicket. The project will remove the berm to the original meadow surface and connect the isolated meadow on its north side to Antone Meadows on its south side. The lodgepole trees will be cut and chipped. A portion will be retained for mulch, but the remainder, including rootwads, will be hauled off site. The total volume of material to be removed is approximately seven hundred (700) cubic yards. Approximately one-third of the material is anticipated to be suitable for reuse, but the remainder will be unsuitable as fill due to abundant tree roots. This material will be hauled off-site and disposed of at a landfill. The disturbed area will be treated with erosion control measures to reduce or eliminate the discharge of soil, sand, and surface water runoff. Best Management Practices (BMPs) will be implemented including seeding with native seed mix and staking with willow collected on site.

Headcut Stabilization – Debris Jams

A small headcut was observed on Burton Creek, approximately five hundred fifty (550) feet upstream of Antone Dam, and its location appears to correlate to the maximum inundation extent of the reservoir. Under current conditions, the headcut is likely stable when it is backwatered by the dam, but may propagate upstream more rapidly after the dam is removed.

Two to four debris jams will be constructed by a hand crew to stabilize the headcut. Materials will be gathered on site. The jams consist of two parallel rows of wood stakes driven into the channel bed and filled with live willow cuttings and organics to slow water flow though a short channel segment.

Access and Staging

Existing roads and disturbed areas will be used for access to the site and staging. Access will be off of State Route 28 (SR-28) near the entrance to Tamarak lodge. The existing staging area near the gate may be used for staging some material. The main staging area will be located at a previously disturbed site adjacent to the dam on the south side. A temporary access road will be constructed along the north side of the meadow to access the berm. The temporary road will be decompacted and mulched upon project completion. With the exception of a small parking area for one vehicle, the staging area will be decompacted and

partially recountoured using the salvaged fill material. The area will be seeded with an upland native seed mix and mulched with one-half inch of pine needles and chips.

Equipment

CSP will use heavy equipment and construction crews with hand and mechanical tools for project construction. Heavy equipment such as excavators, bulldozers, loaders, dump trucks, water trucks, and backhoes will be used. Vehicles will be used to transport crews, materials, and hand tools.

BMPS and Dewatering

BMPs will be incorporated into the project design to ensure that natural and cultural resources in and around the project site are adequately protected during and after construction activities. The BMPs discussed in this document and used in the implementation of the project are obtained from the California Stormwater Quality Association (CSQA) *Stormwater Best Management Practices Construction Handbook* (CSQA 2003). Temporary BMPs will be used to keep sediment on-site throughout the duration of the project. During construction, BMPs will be checked regularly, maintained, and modified as needed. In addition, permanent BMPs will be used after construction work to stabilize the site and minimize erosion. CSP has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all park units of the State Park System. All work will be completed in compliance with the Lahontan Regional Water Quality Control Board (LRWQCB), Tahoe Regional Planning Agency, California Department of Fish and Wildlife, and US Army Corps of Engineers permitting requirements.

Timing

Construction of Antone Dam Removal and Meadow Restoration Project will depend on funding. All appropriate permitting will be completed before any of the project activities are conducted. Areas of mature vegetation to be protected will be delineated prior to construction.

The project construction will take place during one field season during the late summer and fall when the stream is at its lowest flow. The order of activities will include:

1. Install BMPs
2. Establish access, equipment staging area, and stockpile areas
3. Perform clearing and grubbing of berm, stockpile suitable material
4. Dewater stream channel (if not dry)
5. Remove dam
6. Salvage sod and willow
7. Install rock and log structures
8. Seed, plant salvaged material, and apply erosion control fabric
9. Recontour staging area
10. Restore, stabilize, and/or revegetate other disturbed areas
11. Remove BMPs at the direction of the Engineer/CPESC

Work will occur during daylight weekday hours between 7:00 am and 6:00 pm. However, Saturday work could be implemented to accelerate work, especially for winterization needs or to meet management objectives during a limited window of low flow conditions in the creek.

Table 1 - Quantities

Quantities for construction materials and disturbance areas are estimated in Table 1. Quantities may change slightly depending on field conditions encountered during construction.

Item	Quantity	Units	Notes
Disturbance Area	17,100	SF	Total area of grading limit shown on drawings
Staging Area	2,500	SF	Utilize existing disturbed area
Access Route	340	LF	Assume 10' width temporary road
Cut	810	CY	Berm removal + meadow restoration area
Fill	100	CY	Berm removal + meadow restoration area
Off-haul	840	CY	Assume 50% off haul due to roots
1/2-ton Boulders	180	EA	For boulder sills and log vane ballast
Logs with Rootwads	6	EA	For log veins
Remove Dam	30	CY	Estimated volume of concrete (included in off-haul)

Table 1: Quantities based on the 50% design drawings. SF=square feet, CY=cubic yards, EA=each, LF=linear feet.

2.7 Project Requirements

Under CEQA, CSP has the distinction of being considered a lead agency, a public agency that has a primary responsibility for carrying out or approving a project and for implementing CEQA; a responsible agency, a public agency other than the lead agency that has responsibility for carrying out or approving a project and for complying with CEQA; and a trustee agency, a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people for the State of California. With this distinction comes the responsibility to ensure that actions that protect both cultural and natural resources are always taken on all projects. Therefore, CSP has created a list of Project Requirements that are included in project design to avoid or minimize impacts to resources.

CSP has two types of Project Requirements, Standard and Specific. Standard Project Requirements are assigned to all projects state-wide, while Specific Project Requirements are assigned based on the specific actions required to complete the project. Unlike Project Requirements, mitigation measures can be found in the specific section as required (Chapter 5 contains a list of all mitigation measures and project requirements). The following Project Requirements have been included in this project:

Table 2 - Project Requirements.

ISSUE	PROJECT REQUIREMENT
Aesthetics	
STANDARD PROJECT REQUIREMENT AES-1: **SCENIC VIEWS**	• Do not alter viewscapes to expose structures or undesirable views along scenic highways or scenic viewing locations. • Maximize the use of salvaged mature vegetation to reduce the time of regrowth. • Rehabilitate and remove all construction related impacts to pre-project or better than pre-project conditions.
Air Quality	
STANDARD PROJECT REQUIREMENT AIR-1: **EMISSIONS OF FUGITIVE DUST AND OZONE**	• All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions while in use by large machinery for project actions. • All trucks hauling soil or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • All construction-related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements. • Potential dust producing actions will be suspended if sustained winds exceed twenty five (25) miles mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads. • Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed. • Idling time shall be minimized to 10 minutes for all diesel-powered equipment.
Biological Resources	
SPECIFIC PROJECT REQUIREMENT BIO-1: **CALIFORNIA SPOTTED OWL AND NORTHERN GOSHAWK**	• Prior to project activities within habitat identified as suitable for nesting for the California spotted owl or northern goshawk, a CSP-approved biologist will conduct protocol level surveys to ensure no reproductively active California spotted owls or northern goshawks are present. • If an active nest is detected, project activities will not be conducted within a quarter (0.25) miles of California spotted owl nests or within five hundred (500) feet of northern goshawk nests during the breeding season (February 15 to August 15), or until the young fledge, as determined by a CSP-approved biologist. If a CSP-approved biologist determines nests have failed, project work may commence within buffer zones prior to August 15.
STANDARD PROJECT REQUIREMENT BIO-2: BATS, OTHER NESTING RAPTORS, AND NESTING	• A CSP-approved biologist will evaluate trees for use by cavity dwelling birds and bats. If determined to be actively used for reproductive activity, removal will only occur if the tree is identified as a hazard tree by a qualified arborist or CSP-

SONGBIRDS/MIGRATORY BIRDS	approved biologist. Tree removal will not occur during the breeding season. • Project activities will not deliberately result in failure of sensitive nesting songbirds, including olive-sided flycatcher and yellow warbler. Prior to activities occurring in spring or summer, a CSP-approved biologist will conduct surveys. Active sensitive songbird nests will be protected by a two hundred fifty (250) foot buffer from the project boundary. Any proposed project activities within this buffer area will be authorized and/or monitored by CSP-approved biologist to avoid project related nest failure. • Active nests of forest birds not otherwise classified as sensitive but protected by the Migratory Bird Treaty Act will be protected with a one hundred (100) foot buffer area from the project boundary and any project activities within this buffer area will be authorized and/or monitored by a CSP-approved biologist to avoid project related nest failure. • Raptors not specifically addressed in other Project Requirements will be protected by a quarter (0.25) mile active nest buffer from April 1 to August 15, or until young fledge, as determined by a CSP-approved biologist. Any proposed project activities within this buffer area must receive prior authorization from a CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-3: SIERRA NEVADA MOUNTAIN BEAVER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for Sierra Nevada mountain beaver (SNMB) suitable habitat within and adjacent to the project area. If occupied SNMB habitat is located then a CSP Environmental Scientist or CSP-approved biologist will conduct a training session for all construction personnel involved with the project. At a minimum, the training will include a description of SNMB and its' habitat and the measures that will be implemented to protect this species. • All noise related construction and ground disturbing activities within twenty five (25) feet of occupied habitat, as determined by the CSP-approved biologist, will occur between August 1 and January 31 to avoid the SNMB breeding season. • All vehicles and equipment will avoid SNMB habitat, as delineated by the CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-4: SOUTHERN LONG-TOED SALAMANDER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for southern long-toed salamander within the project area. Salamanders located within the project area will be relocated to nearby suitable habitat by the CSP-approved biologist.
STANDARD PROJECT REQUIREMENT BIO-5: SPECIAL STATUS PLANT SPECIES	• Surveys for special status plant species with a potential to occur in the project area will be conducted by a CSP-approved botanist during the appropriate blooming periods or when identity can be confirmed. All occurrences of special status plant species within the project areas will be recorded on project maps, flagged or otherwise identified on the ground. Where possible, occurrences of all special status plants will be avoided and protected from

	construction activities. Those locations where special status plants can't be avoided will be subject to the following conditions: • Perennial Species: Prior to construction plants will be carefully excavated and transplanted nearby in suitable habitat. All transplant work will be conducted under the direction of a CSP-approved botanist. Transplanting will occur during the dormant growing season (i.e. late fall) when the plants are least disturbed and when they can be watered by winter precipitation. • Annual Species: Seeds from annual special status plant species will be collected during the appropriate season and properly stored prior to ground disturbing activities. Seeds will be sown during the appropriate season in suitable locations identified by a CSP-approved botanist.
SPECIFIC PROJECT REQUIREMENT BIO-6: FISH	• Prior to project activities within the active channel, fish will be excluded from the area through the use of standard methods such as seining and/or electrofishing. Standard depletion methods will be utilized to ensure maximum fish removal is attained. • Handling of fish will be minimized. • Fish will be immediately relocated to the active channel outside of the project area; they will not be retained in holding tanks for any period of time.
STANDARD PROJECT REQUIREMENT BIO-7: INVASIVE PLANTS	• All equipment and tools used for project activities will be cleaned free of plant parts and soil in order to prevent the introduction and spread of invasive plants to uncontaminated areas. • A CSP-approved biologist will survey project locations prior to construction activities to ensure the area does not support invasive species that could be spread by project activities. • Project areas will be surveyed by a CSP-approved biologist in the first growing season, after project activities are completed, to ensure that no weeds were introduced during project activities. • Any inadvertent weed introductions or expansions will be treated for removal. • Any imported new fill, such as gravel or soil, shall be from a certified weed free source where feasible.
Cultural Resources	
STANDARD PROJECT REQUIREMENT CULT-1: **ARCHEOLOGICAL MONITORING**	• At the discretion of the project archaeologist a CSP-qualified archaeologist will monitor ground-disturbing activities for this project. Particularly the work along the access route and berm removal area, north of Burton Creek, will be monitored. The archaeologist will have the authority to stop construction work in the area of find and evaluate it and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5
STANDARD PROJECT REQUIREMENT CULT-2:	• In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or

UNDOCUMENTED CULTURAL RESOURCES	deposits of historic trash), work within the immediate vicinity of the find will stop until CSP-qualified cultural resource specialist has evaluated the find and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5
STANDARD PROJECT REQUIREMENT CULT-3: **HUMAN REMAINS OR BURIAL ARTIFACTS**	• In the event that human remains were discovered, work would cease immediately in the area of the find and the project manager/site supervisor would notify the appropriate CSP personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The CSP Sector Superintendent (or authorized representative) would notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (NAHC) or Tribal Cultural Representative. • If the coroner determines the remains represent Native American interment, the NAHC in Sacramento is to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination. • If it is determined the find indicates a sacred or religious site, the site will be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the NAHC or Tribal Cultural Representatives will also occur as necessary to define additional site mitigation or future restrictions.
SPECIFIC PROJECT REQUIREMENT CULT-4: **VEHICLES, HEAVY EQUIPMENT, STAGING AND STORAGE AREAS**	• Vehicles or heavy equipment are not allowed within cultural resources exclusion zones. • Prior to construction, a CSP-qualified cultural resource specialist will review and approve all locations used for staging/storage of vehicles, equipment, and/or materials used during the project. • No staging or storage will be allowed within cultural resources exclusion zones.
SPECIFIC PROJECT REQUIREMENT CULT-5: **HAND CLEARING**	• Manual removal will take place first in areas of identified resources and work outward to fully identify and protect any newly documented and/or extended resources. A CSP-qualified cultural resource specialist will determine the extent of the hand clearing only zone.
GEOLOGY AND SOILS	

SPECIFIC PROJECT REQUIREMENT **GEO-1:** **REMEDIATION OF DISTURBED AREAS**	• All excavated areas for floodplain creation, haul roads, and landing/staging areas will be revegetated or treated to recover to pre-construction conditions or better as outlined in the project plans or SWPPP. • Excavated slopes will be graded to a stable angle and protected against erosion by track walking, and seeding/mulching bare areas. • Where feasible access routes will be limited to previously disturbed areas. • Recontour and/or outslope main routes of travel if necessary to allow sheet flow of water across the landscape and reduce channelization. • All base erosion control measures must be in place, functional, and approved in an initial inspection prior to commencement of construction activities. • Disturbed areas will be seeded, planted, and mulched per the revegetation plan. • All protective devices will be installed shall be in place at the end of each work day when the five-day rain probability exceeds forty (40) percent.
HAZARDOUS AND HAZARDOUS MATERIALS	

STANDARD PROJECT REQUIREMENT HAZMAT-1:
 	
SPILL PREVENTION AND RESPONSE
	• Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination.
	• Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site.
	• Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but not be limited to the following:
	  • A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur.
	  • A list of items required in an on-site spill kit that will be maintained throughout the life of the project.
	  • Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project.
	  • Identification of lawfully permitted or authorized disposal destinations.

STANDARD PROJECT REQUIREMENT HAZMAT-2:	• A Fire Safety Plan will be developed by a CSP-approved forester, prior to the start of construction. • Spark arrestors or turbo-charging (which eliminates sparks in

WILDFIRE AVOIDANCE AND RESPONSE	exhaust) and fire extinguishers will be required for all heavy equipment. • Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked on roads or staging areas to reduce the chance of fire.
Hydrology and Water Quality	
STANDARD PROJECT REQUIREMENT HYDRO-1: **EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION**	• Best Management Practices (BMPs) to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during any ground disturbing activities as approved by the Regional Water Quality Control Board. • The CSP Contractor will install long-term erosion control measures for any areas where ground disturbing activities result in bare soil areas. The soil will be properly decompacted and mulched or revegetated with appropriate native grass seed, sterile grass seed, and/or native duff with the final selection made by a CSP-qualified representative.
SPECIFIC PROJECT REQUIREMENT Hydro-2: **PERMIT AND SITE PLAN** **ADHERENCE AND** **IMPLEMENTATION**	• Limit disturbance area to the necessary extent as outlined in the engineered project plans. • Design, install, and maintain temporary BMPs for the protection of disturbed areas that may be subjected to erosion or surface run-off with the potential to release sediment, nutrients, or hazardous materials to surface or ground water sources. • Implement a dewatering plan for construction activities that are within the low water or bankfull channel. • Use designated and established staging, refueling, and maintenance areas for equipment that has the required BMPs to prevent the potential for contamination of surface or ground water sources. • Any stockpiled material shall have appropriate BMPs according to the permitting requirements to ensure that wind and water erosion potential is eliminated. • Contractor shall be familiar with the conditions of all required project permits and shall implement all required BMPs prior to commencing grading operations.
Noise	
STANDARD PROJECT REQUIREMENT NOISE-1: NOISE EXPOSURE	• Project related activities will generally be limited to the daylight hours, Monday through Friday. However, weekend work may be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur before 8:00 am. or after 6:00 pm. • Internal combustion engines used for any purpose in the project areas will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for project related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or

	shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. • Stationary noise sources and staging areas will be located as far from visitors as possible. If they must be located near visitors, stationary noise sources will be muffled to the extent feasible, and/or where practicable, enclosed within temporary sheds.
Traffic	
STANDARD PROJECT REQUIREMENT TRAFFIC-1: TRAFFIC CONTROL PLAN	Prior to commencing construction, the Contractor shall prepare a traffic control plan that includes the following components: • Exclusionary fencing will be placed along the project limits, as necessary, to exclude non-construction personnel from the construction area. • Speed limits shall be set for heavy equipment traveling to and from the project site by the State's Representative. • Pedestrian access adjacent trails will be clearly delineated and signed.

2.8 Consistency with Local Plans and Policies

The project is consistent with the Burton Creek State Park General Plan, CSP mission and its management directives aimed at preserving the state's extraordinary biological diversity and protecting valued natural resources. The proposed project is consistent with local plans and policies currently in effect. Please see Chapter 3, Section IX, Land Use and Planning, for further details.

2.9 Discretionary Approvals

The project also requires approval from the following government agencies:

- California Department of Fish and Wildlife
- Lahontan Regional Water Quality Control Board
- Tahoe Regional Planning Agency
- U.S. Army Corps of Engineers

Additional internal document reviews include compliance with Public Resources Code § 5024. CSP will acquire all necessary reviews and permits prior to implementing any project components requiring regulatory review.

2.10 Related Projects

CSP conducts a maintenance program for routine maintenance activities that are minor in scope and not cumulatively considerable. These activities include minor restoration to existing facilities, and installation of interpretive projects planned for the park unit. Any projects proposed in areas that have not been previously discussed will be evaluated under a separate CEQA document.

Additionally, Burton Creek State Park has an on-going fuels management program (State Clearinghouse Number 2012042002). The program uses prescribed fire for environmental restoration and reduction of fuel loads and wildfire hazard.

CHAPTER 3
ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION		
1.	Project Title:	Antone Dam Removal and Meadows Restoration Project
2.	Lead Agency Name & Address:	California Department of Parks and Recreation
3.	Contact Person & Phone Number:	Cyndie Walck (530) 523 3041
4.	Project Location:	Burton Creek State Park
5.	Project Sponsor Name & Address:	California Department of Parks and Recreation Sierra District Resources Office California State Parks P.O. Box 266 Tahoma, CA 96142
6.	General Plan Designation:	Resource Protection (Burton Creek General Plan), Open Space and Public Use (Placer County General Plan)
7.	Zoning:	Conservation (Placer County Tahoe Basin Area Plan)
8.	Description of Project:	California State Parks proposes to remove the existing compromised dam on Burton Creek and restore the meadow and stream channel at Burton Creek Natural Preserve, within Burton Creek State Park.
9.	Surrounding Land Uses & Setting:	Refer to Chapter 3 of this document (Section XI, Land Use Planning)
10.	Approval Required from Other	Refer to Chapter 2 of this document (Section XVIII, Tribal Cultural Resources)
12.	California Native American tribe consultation pursuant to PRC 21080.3.1:	Refer to Chapter 3 of this document (Section XVII, Tribal Cultural Resources)

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

☒ None

☐ Aesthetics	☐ Agricultural Resources	☐ Air Quality
☐ Greenhouse Gas Emissions	☐ Wildfire	☐ Tribal Cultural Resources
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	☐ Energy

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared. ☒

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☐

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared. ☐

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially ☐

significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents.

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required. ☐

Silver Hartman
Environmental Coordinator

12/2/2019
Date

ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

Burton Creek State Park is in a high Sierra environment in the Lake Tahoe Basin. Antone Meadows Natural Preserve is a subunit of Burton Creek State Park. The preserve was established to protect a Sierra mountain meadow and consequently, the water quality of waters flowing into Lake Tahoe.

The entire park is undeveloped, but it is used for many recreational activities and includes legacy roads throughout the park. The park roads are used for non-vehicular recreation. There are no Tahoe Regional Planning Agency designated public recreation areas with views of the project area. The view currently is of the deteriorated dam and the impaired meadow upstream. The project will remove the dam and restore the meadow, leaving a view of the restored meadow.

Except as provided in Public Resources Code Section 21099, would the project:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

DISCUSSION

a, c) **Less than Significant** – The proposed project involves enhancing the natural setting of the project area with conformance to the existing natural conditions and environment. Additionally, the project will be in accordance with the Placer County Tahoe Basin Area Plan Implementing Regulations document by removing the water diversion at Antone Meadows and eliminating the existing visual impact (PCTBAP 2016). Furthermore, all revegetation activities will use salvaged vegetation and local native collected seed mix. The project does not involve alteration or development of the landscape to less than the

natural or existing conditions and with the implementation of **STANDARD PROJECT REQUIREMENT AES-1** (Chapter 2) will result in a less than significant impact.

b) **No Impact** – The project area is not within a state scenic highway and therefore, will not impact the scenic resources associated with one.

d) **No Impact** – The proposed project does not involve the creation of any new substantial sources of light or glare

STANDARD PROJECT REQUIREMENT -

STANDARD PROJECT REQUIREMENT AES-1: **SCENIC VIEWS**	• Do not alter viewscapes to expose structures or undesirable views along scenic highways or scenic viewing locations. • Maximize the use of salvaged mature vegetation to reduce the time of regrowth. • Rehabilitate and remove all construction related impacts to pre-project or better than pre-project conditions.

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE – NONE

II. AGRICULTURAL AND FOREST RESOURCES.

ENVIRONMENTAL SETTING

Antone Meadows Natural Preserve is a sub-unit located within Burton Creek State Park. The project is located at the lower end of the meadow where a dam channelizes and flows into Burton Creek. The project setting is montane meadow surrounded by lodgepole pine (*Pinus contorta*), the dominant tree species. Vegetation within this project area also consists of mixed conifer stands, in younger successional stages of fir and pine species, eastside pine stands, and montane riparian habitat.

Farmland

California's agricultural resources are monitored by the Farmland Mapping and Monitoring Program (FMMP), under the California Department of Conservation (CDC). Every two years, the FMMP publishes statistical data related to the status of California Farmland. According to their most recent Important Farmland publication for Placer County (2016), the project location falls outside of the FMMPs survey area (CDC 2016).

Forestland and Timberland

California Public Resource Code Section 12220(g) defines forestland as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

"Timberland" is land owned by the federal government and designated by the State Board of Forestry and Fire Protection as experimental forestland, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Sections 51112 or 51113 (h) of the California Public Resources Code defines "Timberland Production Zone" (TPZ) as land used for growing and harvesting timber and compatible uses.

In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Williamson Act

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. According to their most recent publication for Placer County (2016), the project location and surrounding areas are not enrolled in a Williamson Act contract (CDOC 2016).

Would the project:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Convert Prime Farmland, Unique Farmland, or farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined in PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forestland or conversion of forestland to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environmental, which, due to their location or nature could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?	☐	☐	☐	☒

DISCUSSION

a-e)) **No Impact** - All work proposed as part of this project will be confined within park boundaries. Therefore, this project will have no impact on any category of California Farmland, conflict with any existing zoning for agricultural use or Williamson Act contract, or result in the conversion of farmland to non-agricultural use or forestland to non-forest land. Furthermore, the proposed project is not within a timberland production zone and consistent with PRC section 12220(g), which allows for management of forestland for non-forest product uses, including recreation, aesthetics, fish and wildlife, biodiversity, and water quality.

STANDARD PROJECT REQUIREMENT - NONE

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

III. AIR QUALITY.

ENVIRONMENTAL SETTING

The project site is located in Lake Tahoe Basin and under the jurisdiction of the U.S. Environmental Protection Agency (USEPA), the California Air Resources Board (CARB), the Placer County Air Pollution Control District (PCAPCD), and the Tahoe Regional Planning Agency (TRPA).

CARB makes state area designations for ten criteria pollutants (an air pollutant for which acceptable levels of exposure can be determined and for which an ambient air quality standard has been set): ozone, suspended particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particulates (CARB 2018). In contrast to the State area designations, the U.S. Environmental Protection Agency (U.S. EPA) makes national area designations for six criteria pollutants: ozone (2015 8-hour standard; 2008 8-hour standard), PM_{10}, $PM_{2.5}$, carbon monoxide, nitrogen dioxide, and sulfur dioxide.

A pollutant is designated “attainment” if the state standard for that pollutant was not violated at any site in the area for a three-year period. If there was at least one violation of a state standard for a pollutant in the area, it is designated as “nonattainment” for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “unclassified”.

The Lake Tahoe Air Basin is in nonattainment for the state standard for suspended particulate matter (PM_{10}), and attainment for: ozone, PM2.5, carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates and lead. Hydrogen sulfide and visibility reducing particles are unclassified in the Lake Tahoe Air Basin (CARB 2018). Under national designation, the Air Basin is categorized as unclassified/attainment for all six national criteria pollutants.

Table 3 – Criteria Pollutants

Pollutant	*State Designation*	*National Designation*
Ozone	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Attainment	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	N/A
Visibility Reducing Particles	Unclassified	N/A

CARB – 2018 Area Designation State and National and 2017 PCAPCD Significance Thresholds for Criteria Pollutants

The TRPA establishes environmental air quality standards through its 2015 Threshold Evaluation Report. The report provides an evaluation of current air quality conditions and trends in air pollutants. The report lists threshold standards for the following pollutants: carbon monoxide, ozone, visibility (atmospheric haze), respirable and fine particulate matter, nitrate deposition and odor.

Table 4 - TRPA Threshold Standards

Indicator Category	Adopted TRPA Threshold Standard (TRPA Resolution 82-11)	TRPA Indicator	Unit of Measure
Carbon Monoxide	For 8-hour carbon monoxide, maintain concentrations at or below 6 parts per million averaged over 8 hours	First and second highest carbon monoxide concentrations measured at Stateline, NV monitoring station	Parts per million (ppm)
Ozone	Maintain ozone concentrations at or below 0.08 parts per million averaged over 1 hour	Highest 1- hour average ozone concentration measured within a year at any monitoring station	Parts per million (ppm)
Visibility	Achieve an extinction coefficient of 125Mm^{-1} at least 90 percent of the time as calculated from aerosol species concentrations measured at the South Lake Tahoe monitoring site (visual range of 19 miles)	Extinction coefficient and distance of visibility. 3-year running average of extinction coefficient	Light extinction (Mm^{-1}) and Miles or Kilometers
PM_{10}	Maintain PM10 at or below annual arithmetic average of 20 $\mu g/m^3$ in the portion of the Region within CA, and maintain PM10 at or below annual arithmetic average of 50 $\mu g/m^3$ in the portion of the region within NV	Annual average PM10 concentrations at any permanent monitoring station ($\mu g/m^3$)	Micrograms per cubic meter ($\mu g/m^3$)
$PM_{2.5}$	Maintain PM2.5 at or below 35 $\mu g/m^3$ measured over a 24-hour period using gravimetric or beta attenuation methods or any equivalent procedure which can be shown to provide equivalent results at or near the level of air quality standard	Number of 24-hr periods exceeding the applicable federal or state standards at any monitoring station	Micrograms per cubic meter ($\mu g/m^3$)
Nitrate Deposition	Reduce the transport of nitrates into bin and reduce oxides of nitrogen produced in the basin consistent with the water quality thresholds.	Implementation of management standard into Regional Plan	N/A
Odor	Reduce fumes from diesel engine to extent possible	Policy statement in Regional Plan	N/A

Land owners and managers within Placer County are subject to air quality planning programs required by the federal Clean Air Act of 1970 (CAA), its 1990 amendments, and the California Clean Air Act of 1988 (CCAA). Both the federal and state clean air statutes provide for ambient air quality standards related to air pollutants, timetables for progressing toward achieving and maintaining ambient standards, and the development of plans to guide air quality improvement

efforts by state and local agencies. However, Placer County's significance thresholds for criteria pollutants are not applicable since Burton Creek State Park is outside of the Lake Tahoe Area/Placer County portion of the Sacramento Federal Ozone Nonattainment Area.

All projects are subject to rules and regulations adopted by the PCAPCD in effect at the time of construction. Specific rules applicable to future construction resulting from the implementation of the proposed project may include but are not limited to:

Table 5 - PCAPCD Air Quality Rules and Regulations

RULE NUMBER	*DESCRIPTION*
RULE 202 VISIBLE EMISSIONS	A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air containment for a period or periods aggregating more than three days in any one hour.
RULE 205 NUISANCES	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such person or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
RULE 214 TRANSFER OF GASOLINE INTO VEHICLE FUEL TANK	The provisions of this rule apply to the transfer of gasoline from any stationary storage tank into any motor vehicle fuel tank.
RULE 228 FUGITIVE DUST	To reduce the amount of particulate matter entrained in the ambient air, or discharged into the ambient air, as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
RULE 242 STATIONARY INTERNAL COMBUSTION ENGINES	To limit the emission of nitrogen oxides and carbon monoxide from stationary internal combustion engines.

Source: PCAPCD CEQA Handbook, 2017 https://www.placer.ca.gov/1801/CEQA-Handbook

Sensitive Receptors

Sensitive receptors include individuals as well as groups relating to specific land uses. Some individuals are considered to be more "sensitive" than others to air pollutants. The reasons for greater sensitivity than average include health problems, proximity to the emission source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, elderly and infirm are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential uses are considered sensitive receptors because people in residential areas are often at home for

extended periods of time, so they can be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function. Sensitive receptors in the proposed project areas include recreational uses (trail-users, park visitors, etc.) as well as the sparse residential development in the vicinity of the project.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	POTENTIALLY SIGNIFICANT IMPACT	LES S THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒

DISCUSSION

a) **No Impact**- The work proposed would not conflict with, or obstruct the fulfillment of any applicable air quality plan

b) **Less than Significant Impact** - Implementation of the proposed project would not result in the ongoing operation of any new emissions sources. Conditions would remain generally unchanged, thus, there will be no impact related to long-term emissions of criteria air pollutants and ozone precursors, but there will be temporary emissions. The short duration of construction and small project footprint will result in impacts of which are not significant.

Based on similar projects, the assumptions presented in Table 6 – Estimated Construction Emissions (lbs./day) and PCAPCD Significance Threshold regarding type of construction equipment were used in the CalEEMod. CalEEMod does not have a land use for Natural Preserves so a proxy of “City Park” is used. This proxy results in a conservative estimation of emissions.

Table 6 – Estimated Construction Emissions (lbs./day) and PCAPCD Significance Threshold

PROJECT PHASES	ROG LBS./DAY	NO_X LBS./DAY	PM_{10} LBS./DAY	$PM_{2.5}$LBS./Day
DEMOLITION	2.2678	21.0589	1.3339	1.1240
SITE PREPARATION	1.7165	18.3987	6.7236	3.7369
GRADING	1.4364	15.1376	5.7017	3.1832
CONSTRUCTION	2.2588	15.6757	1.0742	0.8473
PAVING	0.9808	8.5363	0.6371	0.4782
DAILY TOTAL	8.6603	63.1315	15.4705	9.3696
PCAPCD SIGNIFICANCE	82	82	82	N/A
EXCEED SIGNIFICANCE	No	No	No	N/A

The dam removal, meadow and channel restoration, construction of temporary access roads, vegetation thinning, and material import and export for the proposed project will temporarily generate emissions of reactive organic gas (ROG), NO_x, and PM_{10} from site preparation (e.g. excavation, and land clearing); exhaust from construction equipment, construction workers' commute trips, and materials transport; and other miscellaneous activities. There will be approximately fifty (50) to eighty (80) truckloads of fill and rock material transported to or exported from the project area. The diesel powered equipment that will be used on-site would likely include excavators, loaders, water pumps, dozers, haul trucks, and hand tools (such as chain saws).

The ground disturbance, which produces fugitive PM_{10} dust, will occur during the summer, and therefore would not overlap with the time of year when the Lake Tahoe Air Basin experiences its highest levels of PM_{10} from use of wood for heating purposes.

Potential impacts from fugitive dust emission resulting from project construction activities will be limited by implementation of **STANDARD PROJECT REQUIREMENT AIR-1** (Chapter 2). Compliance with these standards will reduce air quality emission impacts related to the project to a less than significant level.

c) **No Impact** - The nearest residence to the project area over a mile away, therefore, the project construction activities would not expose this, or any, sensitive receptor to substantial concentration of pollutants.

d) **No Impact** - The project will not generate any long-term objectionable odors. During the construction of the project there may be short-term objectionable odors from large equipment exhaust, but the project is not near any sensitive receptors or residence, therefore, will not impact a substantial amount of people.

PROJECT REQUIREMENTS – AIR QUALITY

STANDARD PROJECT REQUIREMENT AIR-1: **EMISSIONS OF FUGITIVE DUST AND OZONE**	• All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions while in use by large machinery for project actions. • All trucks hauling soil or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard. • All construction related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements. • Potential dust producing actions will be suspended if sustained winds exceed twenty five (25) miles mph, instantaneous gusts exceed thirty five (35) mph, or dust from construction might obscure driver visibility on public roads. • Earth or other material that is transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed. • Idling time will be minimized to ten (10) minutes for all diesel-powered equipment.

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

IV. BIOLOGICAL RESOURCES.

ENVIRONMENTAL SETTING

The proposed project activities will take place in Burton Creek State Park in the Antone Meadows Natural Preserve, where Burton Creek flows through a broad wet meadow. At the lower end, where the meadow narrows and the valley becomes steeper, the channel is dammed to create a small pond that diverts water into a pipe for the PUD water right.. The project setting is montane meadow surrounded by a lodgepole pine (*Pinus contorta ssp murryana*) dominated coniferous forest. Vegetation within this project area also consists of mixed conifer stands, in younger successional stages of fir and pine species, eastside pine stands, and montane riparian habitat. The park is home to many mammal and bird species with fewer reptiles and amphibians, all typical of middle elevations in the Sierra Nevada mountain range.

Vegetation

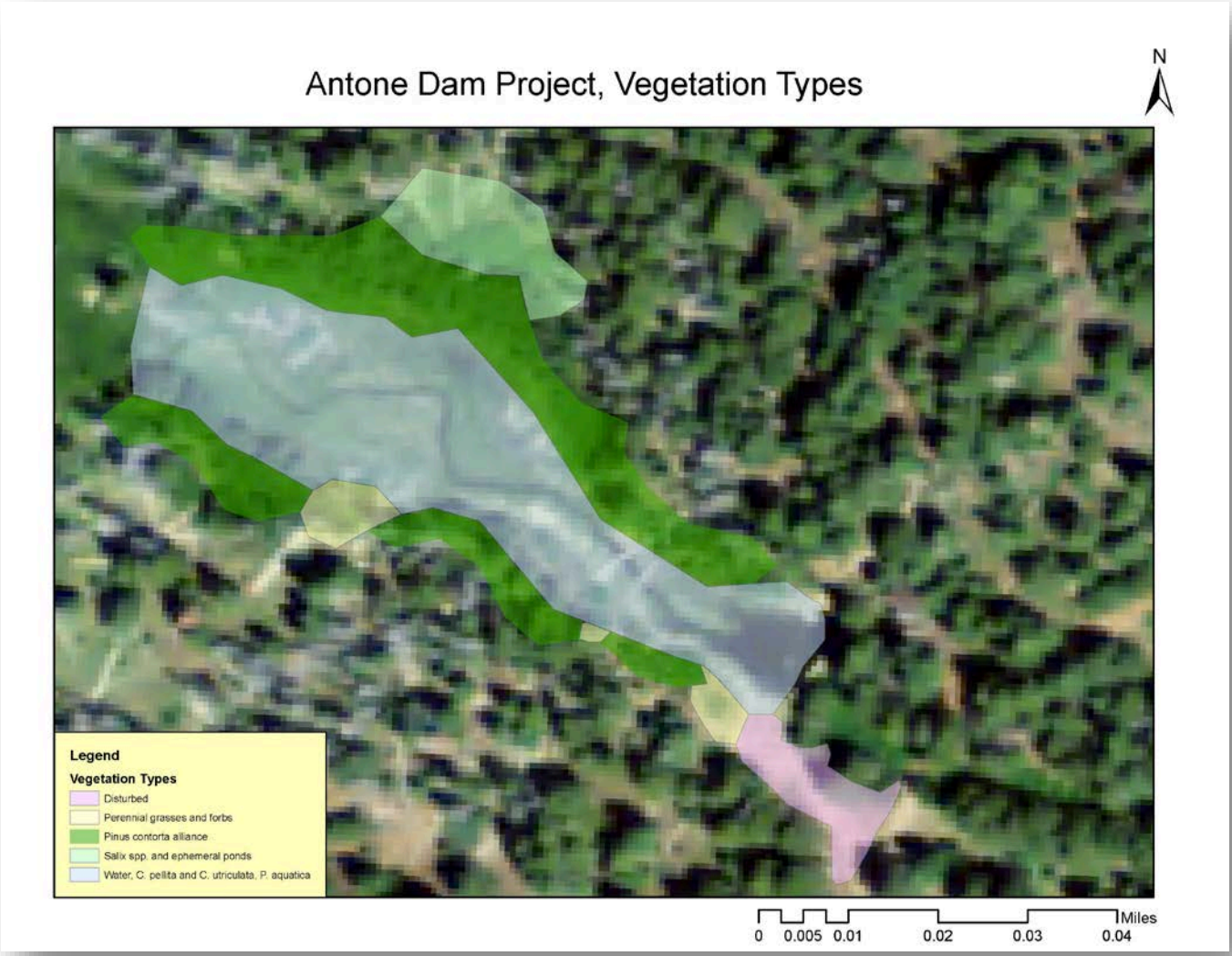
Vegetation types (= natural communities) in the state have been classified by the California Department of Fish and Wildlife (CDFW) and published in the Manual of California Vegetation (Sawyer et al. 2009) utilizing standards that comply with the National Vegetation Classification Standard adopted by the U.S. government (USNVC 2019). The classification level/category most commonly used in describing vegetation is Alliance, which is roughly equivalent to the more generic term plant community. Alliances are based on the dominant or less commonly co-dominant species within the vegetation layer that is most important in defining it. For example, lodgepole pine dominates the canopy of the Lodgepole Pine Forest Alliance. Vegetation types found at Antone Meadows are represented in Figure 8 below. The project area is surrounded by mixed coniferous forest, dominated by white fir (*Abies concolor*), and mixed with red fir (*Abies magnifica*), lodgepole pine (*Pinus contorta* ssp. *murrayana*) and Jeffrey pine (*Pinus jeffreyi*). CDFW classifies this vegetation type as *Abies concolor* (White Fir Forest) Forest Alliance

The excavated pond holds water, gradually drying out throughout the summer. Vegetation on the edges of the pond is dominated by stands of *Carex pellita* and *Carex utriculata,* with water smartweed (*Persicaria amphibia*) growing further away from the edges and toward the center of the pond. The berms parallel to the excavated pond can be characterized as *Pinus contorta* ssp. *murrayana* (Lodgepole Pine Forest) Forest Alliance. Lodgepole trees are growing densely with a sparse understory of perennial forbs, sedges and grasses. Where lodgepole pine does not dominate, vegetation is characterized by perennial grasses and forbs, such as *Calamagrostis canadensis*, *Torreyochloa pallida*, *Elymus glaucus*, *Trifolium longipes* and others (Perennial grasses and forbs on Figure 1).

On the north side of north berm, there is a patch of willow shrubs and seasonally wet shallow depressions fed by the high groundwater. The depressions dry out toward the end of spring and early summer and get filled in with annual and perennial forbs (*Salix* spp. and ephemeral ponds on Figure 1). On the south end of the project, there is a disturbed area adjacent to the

road and bridge over Burton Creek. This area has compacted ground and gets partially scoured by the water that spills over the dam in early spring. It is characterized by a mixture of upland perennial grasses (*Bromus* sp), forbs (*Lupinus* spp.*, Acmispon americanus, Potentilla* sp.), some common non-native species (*Taraxacum officionale*), and a large proportion of bare ground. At the dam outflow and downstream along Burton Creek, mountain alder (*Alnus incana*) and *Ribes* species mix with lodgepole and white fir.

Figure 8 - Burton Creek Vegetation Types



Special Status Plant Species

Sensitive biological resources that occur or potentially occur in or near the proposed project site are discussed in this section. Special-status species (sensitive species) are defined as plants and animals that are legally protected or that are considered sensitive by federal, state,

or local resource conservation agencies and organizations. Specifically, this includes species listed as state or federally threatened or endangered, those considered as candidates for listing as Threatened or Endangered, species identified by the US Fish and Wildlife Service (USFWS) and/or CDFW as Species of Special Concern (SSC), animals identified by CDFW as Fully Protected or Protected (FP, P), and plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered. Also included are habitats considered critical for the survival of a listed species or have special value for wildlife species and plant communities that are unique or of limited distribution.

Sensitive Plant List Compilation

Prior to field surveys a list of special status plants with potential to occur in the project area was compiled by searching the CDFW California Natural Diversity Database (CDFW 2019) and California Native Plant Society (CNPS 2019) sensitive plant databases and consulting Lake Tahoe Basin Management Unit's (LTBMU 2019) sensitive plant list. Database searches covered United States Geological Survey (USGS) 7.5 minute topographic quadrangles of Norden, Truckee, Martis Peak, Granite Chief, Tahoe City, Kings Beach, Wentworth Springs, Homewood, and Meeks Bay. Special status plants were defined as listed either federally or at the state level (rare, endangered, threatened, candidate, delisted), on the LTBMU's special status plant list, or on the CNPS California Rare Plant list. Fifty (50) species were identified from these sources (See Table 8 Appendix B). A CSP biologist ranked probability of occurrence for each of the fifty (50) species based on elevations at which each species grows and whether suitable habitat for each species was present in the project area. Information about blooming period, habitat descriptions, blooming times and photographs were collected for species with a potential to occur in the project area. The surveying botanists used the information to familiarize themselves with the special status plants. Permits for collection of special status plants were obtained from the CDFW.

Special Status Plant Species that are Known to Occur, or Could Potentially Occur Within or Adjacent to the Project Area

Alder buckthorn (*Rhamnus alnifolia*) – Alder buckthorn is a California Rare Plant Rank 2B.2 perennial deciduous shrub that blooms from May to July and occurs at elevations from 4494 feet to 6990 feet amsl (above mean sea level). It occupies lower montane coniferous forest, meadows and seeps, riparian scrub, and upper montane coniferous forest habitats in the Sierra Nevada and southern Cascade Ranges. Suitable habitat for this species occurs in the project area.

Bolander's bruchia (*Bruchia bolanderi*) – Bolander's bruchia is a California Rare Plant Rank 4.2 moss species that inhabits damp soil in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest in the Sierra Nevada and Cascade Ranges of central and northern California. It occurs at elevations from 5580 feet to 9180 feet amsl. Potentially suitable habitat occurs in the project area.

Clustered-flower cryptantha (Cryptantha glomeriflora) – Clustered-flower cryptantha is a California Rare Plant Rank 4.3 annual herb that inhabits granitic or volcanic sandy substrates in Great Basin scrub, meadows and seeps, subalpine coniferous forest, and upper montane coniferous forest habitats. It blooms from June to September and occurs at elevations from 5900 feet to 12,300 feet amsl. Potentially suitable habitat for this species occurs in the project area.

Davy's sedge (*Carex davyi*) – Davy's sedge is a California Rare Plant Rank 1B.3 perennial herb of upper montane coniferous forest and subalpine coniferous forest habitats in the Sierra Nevada Mountains. It ranges in elevations from 4920 feet to 10,500 feet amsl and blooms from May to August. Potentially suitable habitat for this species occurs in the project area.

Marsh skullcap (*Scutellaria galericulata*) – Marsh skullcap is a California Rare Plant Rank 2B.2 perennial rhizomatous herb found in lower montane coniferous forest, meadows and seeps (mesic), and marshes and swamps habitats from sea level to 6890 feet amsl. It blooms from June to September. Suitable habitat for this species occurs in small patches within the project area.

Mingan moonwort (*Botrychium minganense*) – Mingan moonwort is a California Rare Plant Rank 2B.2 perennial rhizomatous herb that occurs at elevations from 4775 feet to 7150 feet amsl and blooms from July to September. It occupies bogs and fens, lower montane coniferous forest, meadows and seeps (edges), and upper montane coniferous forest habitats in mountainous areas of California, including the Sierra Nevada Mountains. Potentially suitable habitat for this species occurs in the project area.

Oregon fireweed (*Epilobium oreganum*) – Oregon fireweed is a California Rare Plant Rank 1B.2 perennial herb that occupies mesic habitat in bogs and fens, lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest. It blooms from June to September and occurs at elevations from 1640 feet to 7350 feet amsl in mountainous areas of California, including the Sierra Nevada Mountains. Suitable habitat for this species occurs in the project area.

Plumas ivesia (*Ivesia sericoleuca*) – Plumas ivesia is a California Rare Plant Rank 1B.2 perennial herb that occupies vernally mesic habitat (usually volcanic) in Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. It blooms from May to October and occurs at elevations from 4300 feet to 7220 feet amsl in Lassen, Nevada, Placer, Plumas, and Sierra Counties. This species is reported to occur in the park and suitable habitat exists in the project area.

Ribbon-leaved pondweed (*Potamogeton epihydrus*) – Ribbon-leaved pondweed is a California Rare Plant Rank 2B.2 perennial rhizomatous herb that blooms from July to September (sometimes June) and occurs at elevations from 1210 feet to 7125 feet amsl. It is limited to freshwater aquatic habitat of marshes and swamps in the Sierra Nevada and Coast Ranges. Suitable aquatic habitat exists in the project area.

Santa Lucia dwarf rush (*Juncus luciensis*) – Santa Lucia dwarf rush is a California Rare Plant Rank 1B.2 annual herb that is endemic to the state and occurs in chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools habitats. It blooms from April to July and occurs at elevations from 980 feet to 6690 feet amsl. Suitable habitat for this species occurs in the project area.

Scalloped moonwort (*Botrychium crenulatum*) – Scalloped moonwort is a California Rare Plant Rank 2B.2 perennial rhizomatous herb that occurs at elevations from 4160 feet to 10,760 feet amsl in mountains from southern California through the Sierra Nevada Mountains to northeastern California. It blooms from June to September in bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps (freshwater), and upper montane coniferous forest habitats. Potentially suitable habitat for this species occurs in the project area.

Slender-leaved pondweed (*Stuckenia filiformis* ssp. *alpina*) – Slender-leaved pondweed is a California Rare Plant Rank 2B.2 perennial rhizomatous herb restricted to aquatic habitat of shallow, freshwater marshes and swamps and occurs at elevations from 980 feet to 7050 feet amsl. It blooms from May to July. Although there are few reported occurrences in the state, suitable habitat for this species occurs in wet locations of the project area.

Upswept moonwort (*Botrychium ascendens*) – Upswept moonwort is a California Rare Plant Rank 2B.3 perennial rhizomatous herb found in mesic locations of lower montane coniferous forest and meadows and seeps habitat in mountainous areas of California, including the Sierra Nevada Mountains. It blooms from July to August and occurs at elevations from 3650 feet to 8860 feet amsl. Potentially suitable habitat for this species occurs in wet locations of the project area.

Water awlwort (*Subularia aquatica* ssp. *americana*) – Water awlwort is a California Rare Plant Rank 4.3 aquatic annual herb that is restricted to lake margins habitat within upper montane coniferous forest at elevations from 6234 feet to 10,170 feet amsl. It blooms from July to September. Suitable habitat for this species occurs in wet locations of the project area.

Western goblin (*Botrychium montanum*) – Western goblin is a California Rare Plant Rank 2B.1 perennial rhizomatous herb that occupies mesic habitat in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest. It blooms from July to September and occurs at elevations from 4800 feet to 7150 feet amsl in the Sierra Nevada and Cascade Ranges of California and north to Alaska. Potentially suitable habitat for this species occurs in in wet locations of the project area.

Survey

Field visits occurred twice a month during the May-August period of 2017 to make sure that the full suite of species was encountered in flower. Visits occurred on May 11th and 24th, June 15th and 29th, July 13th and 26th, August 9th and 30th. Additional opportunistic visits occurred in the summer of 2017, September 25th of 2018 and 2019. CSP biologists followed CDFW guidelines for surveys (CDFW 2018). The surveys were floristic in nature, and a list of

all encountered species was compiled. Species were identified in the field from prior determination, or samples were collected and identified with the help of the Jepson Manual (Baldwin et al 2012), Jepson Herbarium (2019), and Calflora (2019).

Results

One hundred seventy six (176) species were recorded during the surveys. Twelve (12) of the plants were identified to genus level only, and six (6) plants were identified to family level only. The plants that were only partially defined are very unlikely to belong to the sensitive status plants. None of the potentially sensitive *Carex* species on the sensitive list are likely to occur in the project area because of the habitat mismatch. Additionally, the leaf characteristics of one of the unknown *Carex* species do not match any of the sensitive species. The unknown *Carex* has a well-developed, grass-like leaf, while *Carex lasiocarpa* has a narrow leaf (0.7-2.0 mm). An unknown *Epilobium* was found in the project area. This plant had lanceolate to linear leaves that were 15-20 mm long. It is unlikely to be *Epilobium oreganum* (one of the plants on the special status list) because the leaf shape and size do not match the *E. oreganum* description of lanceolate to ovate leaves 30-90 mm in length (Hoch 2012). None of the other partially identified plants belong to sensitive plant genera.

Non-native plants

Twelve (12) non-native species were identified in the project area, but none are considered a priority for management by the Lake Tahoe Basin Weed Management Area (LTBWCG 2019). Since Antone Meadows and the dam are in a remote area of the park, non-native plants were likely introduced to the meadow and surrounding area in the late 19th or early 20th century when Antone Meadows was part of a dairy operation and subject to cattle grazing (Stammerjohan and Nesbitt 1990). The non-native invasive perennial grasses found around the dam (*Dactylis glomerata, Poa pratensis, Poa palustris*) are commonly associated with grazed areas, but have not increased in dominance since the elimination of grazing.

Wildlife Species

Mammals and birds use meadow areas within Burton Creek State Park for concealment, nesting, water, and foraging. Large mammals using this habitat include black bear (*Ursus americanus*), mule deer (*Odocoileus hemionus*), and mountain lion (*Felis concolor*). Medium and small mammals observed in the park include coyote (*Canis latrans*), raccoon (*Procyon lotor*), porcupine (*Erethizon dorsatum*), short-tailed weasel (*Mustela erminea*), golden-mantled ground squirrel (*Spermophilus lateralis*), yellow-pine chipmunk (*Tamias amoenus*), montane shrew (*Sorex monticolus*), and western jumping mouse (*Zapus princeps*). Common bird species inhabiting Antone Meadows include the Dark-eyed Junco (*Junco hyemails*), Steller's Jay (*Cyanocitta stelleri*), song sparrow (*Melospiza melodia*), western wood-pewee (*Contopus sordidulus*), mountain chickadee (*Poecile gambeli*), and Wilson's warbler (*Cardellina pusilla*).

Reptiles and amphibians comprise a relatively small percentage of the wildlife found in Antone Meadows State Natural Preserve. The western fence lizard (*Sceloporus occidentalis*) may be

seen on the coniferous forest fringe of the meadow, while the Sierra garter snake (*Thamnophis couchii*) may be seen in and around the meadow. Most amphibians are dependent on streams, ponds, and other water bodies for reproduction and other aspects of their life. Amphibian species present include Pacific tree frog (*Hyla regilla*) and western toad (*Anaxyrus boreas)*.

Twenty-three (23) special-status wildlife species have been identified by the California Natural Diversity Database (CNDDB 2019) and U.S. Fish and Wildlife Service (USFWS) (IPaC 2019) as occurring or having a potential to occur within the Tahoe City and Truckee 7½ -minute USGS quadrangle maps (See Table 8.2 Appendix B). Suitable habitat is available within the park for ten (10) of these species, seven (7) of which have been reported to occur in the park or are likely to occur (Appendix B: Special Status Wildlife Species Evaluated for Project). These species are described below.

Special-Status Wildlife Species that are known to Occur, or Could Potentially Occur Within or Adjacent to the Project Area

BIRDS

All raptor species and their nests are protected under Fish and Game Code §3503.5. Migratory non-game native bird species are protected under the federal Migratory Bird Treaty Act (MBTA). These protections prohibit the take (including disturbances which would cause abandonment of active nests containing eggs and/or young) of all birds and their active nests.

California spotted owl (*Strix occidentalis occidentalis*) – This California Species of Special Concern (SSC) is a resident of mixed conifer forests in the Sierra Nevada, often in stands with medium to large diameter trees, greater than forty percent (40%) canopy cover, and on north facing slopes (Gutiérrez et al 1992). The breeding season for this species in the Lake Tahoe Basin is February 15 through August 15. There are no known nest sites within the proposed project area, but there are historic nesting territories within half a mile (.50) and these owls probably forage near Antone Meadows.

Northern goshawk *(Accipiter gentilis*) – The SSC northern goshawk is the largest of the accipter hawks and also prefer old-growth conifer, mixed hardwood-conifer, birch, or aspen forests for nesting (Cornell 2016a, Squires and Reynolds 1997, Small 1994; Zeiner et al. 1990a). This species' diet depends on season and region, but generally small rodents, squirrels, large songbirds, and medium-sized game birds form the bulk of their diet. The nesting period typically starts in March or early April, with only one brood being produced per season. Fledging occurs approximately thirty six (36) days after hatching. There are known breeding territories a quarter mile (.25) east and three-quarters west of project area.

Olive-sided flycatcher (*Contopus cooperi*) -- This SSC nests in open-canopy conifer forest near edge openings, usually at higher elevations (Shuford and Gardali 2008). This is a migrant species, present in the Tahoe area for breeding May 1 through August 31. This flycatcher is

an aerial forager that feeds on flying insects, especially bees. Suitable habitat is present at the project site.

Willow flycatcher (*Empidonax traillii*). – Habitat for this State Endangered species generally consists of extensive, dense willow thickets along riparian or other wetland areas (Cornell 2019b). Insects provide most of this small bird's diet, which is supplemented by berries in the fall. A willow flycatcher was observed just north of the project area last year (Lewis 2018).

Yellow warbler (*Setophaga petechia*) – The yellow warbler is a SSC that prefers thick deciduous riparian woodlands, especially willows. They migrate from the south to Tahoe every summer to breed and will arrive around early May. Their populations are negatively impacted by brown-headed cowbird nest parasitism and cowbirds are known to occur in the project area (Dunn and Garett 1997). Yellow warblers are known to occur near the project area during breeding season and probably nest in the willows.

MAMMALS

Sierra Nevada mountain beaver (*Aplodontia rufa californica*) – This SSC short-tailed rodent is about twelve (12) to twenty (20) inches in length and weighs approximately one (1) to two (2) pounds (iNaturalist 2019). It can be found in scattered populations throughout the Cascade, Klamath, and Sierra Nevada Ranges. Mountain beavers prefer dense riparian forest typically in close proximity to water and deep, friable soils that allow for easy burrowing (CDFG 1989; iNaturalist 2019; Zeiner et al. 1990b). This species feeds on a variety of plant material, including willows (*Salix* spp.), lupine (*Lupinus* spp.), and grasses. Suitable habitat for this species may be present near project sites, and the nearest CNDDB occurrence is one (1) mile northeast on Dollar Creek. Surveys were conducted in 2001 at Dollar Creek and two (2) individuals and evidence of a home range were seen (CNDDB 2019).

Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*) -- This SSC is resident in montane riparian habitat with a dense scrub layer and stands of young conifer mixed with chaparral, including the early seral stages of mixed conifer forest. These hares are nocturnal and active year round, and spend most of the day in shallow depressions, known as forms, scraped out under clumps of ferns, brush thickets, and downed piles of timber (Maser et al 1981). Sierra Nevada snowshoe hare is known to occur within Burton Creek State Park and suitable habitat is present in the project area (DPR 2001).

Sensitive bat species – The project area is within the potential range of several sensitive bat species, some of which are known to roost in tree cavities. Sensitive bat species that might roost within or adjacent to the project areas are the silver-haired bat (*Lasionycteris noctivagans*), the long-legged myotis bat (*Myotis volans*), and the long-eared myotis bat (*Myotis evotis*). There are not many bat surveys being conducted in the basin, so there is limited information on their distribution. There is a long-legged myotis occurrence near Watson Creek about two (2) miles northeast of the project area (CNDDB 2019). Long-legged myotis bats roost in rock crevices, buildings, under tree bark, in snags, mines, and caves. Trees are

important day roosts; caves and mines are used only as night roosts. Nursery colonies with hundreds of individuals usually occur under bark or in hollow trees, but occasionally in crevices or buildings.

AMPHIBIANS

Southern long-toed salamander (*Ambystoma macrodactylum sigillatum*) – This amphibian is a SSC that inhabits alpine meadows, high mountain ponds, and lakes. Breeding occurs in permanent or temporary ponds, lakes, and flooded meadows. These salamanders spend most of their time underground in mammal burrows or under logs. Generally, the adult males are present at the breeding site for several months since they feed there, but females will only enter the breeding site for a day or two (2), lay their eggs, do not feed, and then head back to the upland habitat. Transformation may take four to five (4 - 5) months for larvae in temporary ponds, but they may not transform until their second or third season at high elevations (CaliforniaHerps 2019). There is a breeding territory four (4) miles away in a pond at Paige Meadows in Tahoe City. Larvae have been seen in this pond in early June (CNDDB 2019). These salamanders have not been seen at Antone Meadows, but this area does have suitable habitat.

WATERS OF THE UNITED STATES AND WETLANDS

The federal Clean Water Act (CWA) is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The intent was to maintain the chemical, physical, and biological integrity of the nation's waters [Federal Water Pollution Control Act/Clean Water Act, 33 U.S.C. 1251, §101(a), 2002]. It was also intended to provide a mechanism for regulating discharges of pollutants into the waters of the U.S. and gave the U.S. Environmental Protection Agency (USEPA) authority to implement pollution control programs, such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters.

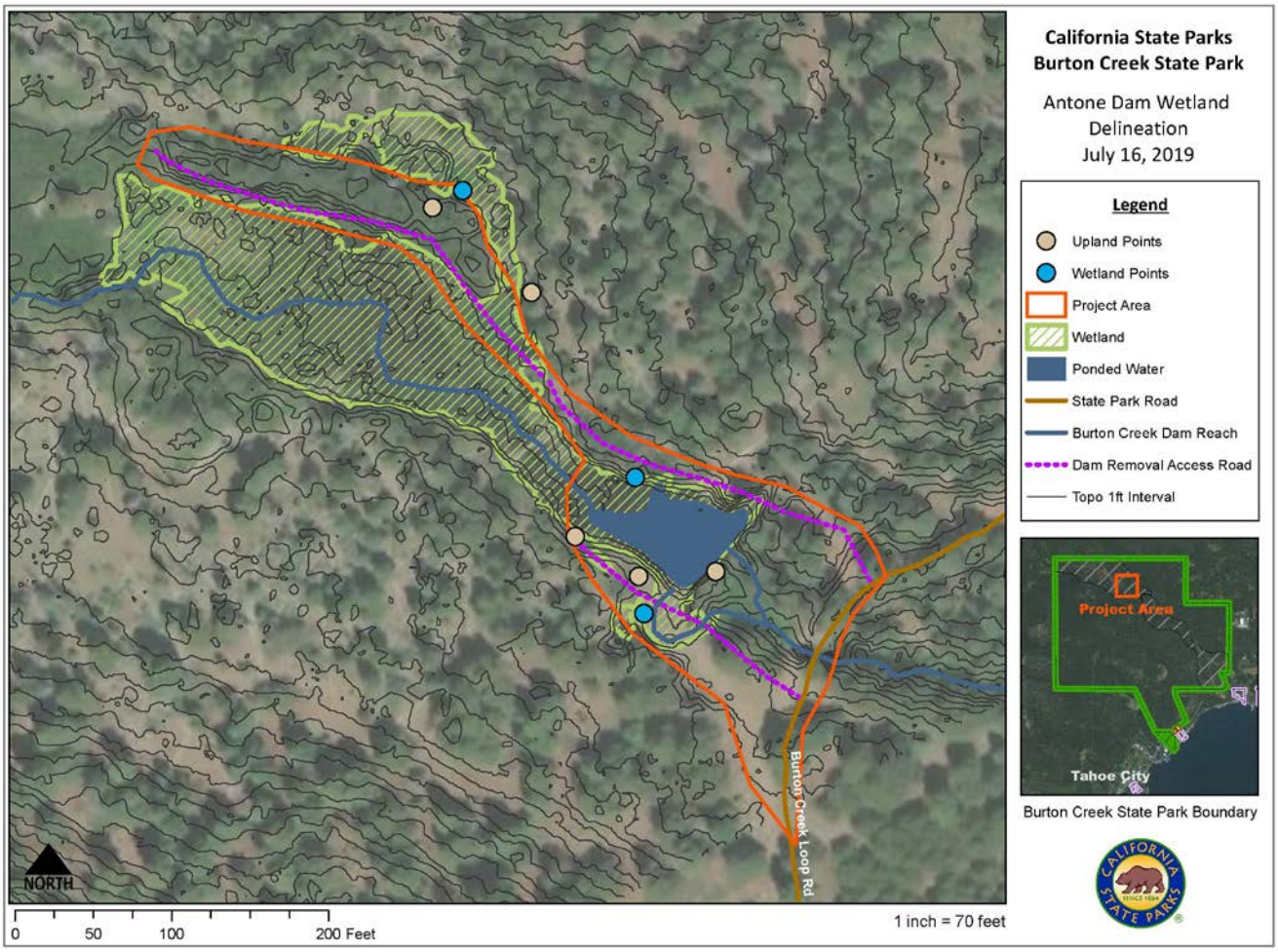
Section 404 of the CWA establishes programs to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. The term "waters of the United States" applies to the jurisdictional limits of the authority of the US Army Corps of Engineers (USACE) to regulate navigable waters under Section 404 of the CWA. Navigable waters are defined in Section 502(7) of the Act as "waters of the United States, including the territorial seas." By definition, navigable waters include all wetlands and tributaries to "waters of the United States."

Under Section 404 of the Act, the USACE has authority to regulate the discharge of dredged or fill material into navigable waters. The authority for the USACE to regulate navigable waters is also provided under Section 10 of the federal Rivers and Harbors Act of 1899. Under this statute, the USACE regulates excavation or filling operations or the alteration or modification of the course, location, condition, or capacity of any navigable water of the United States. Waters are defined as all waters used in interstate or foreign commerce, waters subject to the ebb and

flow of the tide, all interstate waters including interstate wetlands and all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, and natural ponds.

The CWA and the USACE defines wetlands as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The majority of USACE jurisdictional wetlands meet three wetland delineation criteria: (1) hydrophytic vegetation, (2) hydric soil types, and (3) wetland hydrology. USACE jurisdictional wetlands have been delineated within a portion of the project area. A qualified CSP Environmental Scientist (Lubin 2019) conducted a wetland delineation of the project site using the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (USACE 2010). The results are illustrated on Figure 9, Antone Dam Wetland Delineation.

Figure 9 - Antone Dam Wetland Delineation Map



For purposes of Section 404 of the Clean Water Act, the lateral limits of USACE jurisdiction over non-tidal water bodies (e.g. streams) extend to the ordinary high water mark (OHWM), in the absence of wetlands (USACE 2005). Part of the project area occurs within the OHWM of Burton Creek and is subject to USACE jurisdiction.

The State Water Resources Control Board regulates the alteration of any federal water body, including wetlands and streams identified above, through Section 401 of the CWA. The appropriate Regional Water Quality Control Board(s) certify that water quality of the affected water body is not subject to unacceptable environmental impacts through provisions of the 401 certification program (SWRCB 2016). This project is subject to the regulatory authority of the Lahontan Regional Water Quality Control Board.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
WOULD THE PROJECT:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

DISCUSSION

a) (i) **Less Than Significant Impact. California Spotted Owl and Northern Goshawk.** As described in the Environmental Setting, no known California spotted owl nest sites occur within the proposed project area, but there are historic nesting territories within a half (.05) a mile and these owls probably forage near Antone Meadows. Known northern goshawk breeding territories exist a quarter (.25) mile east and three-quarters (.75) mile west of the project area. All raptor species and their nests are protected under Fish and Game Code §3503.5. Integration of **Specific Project Requirement Bio-1: California Spotted Owl and Northern Goshawk** would reduce project impacts to these species to a less than significant level.

a) (ii) **Less Than Significant Impact. Bats, Other Nesting Raptors, and Nesting Songbirds/Migratory Birds.** As described above in the Environmental Setting, the project area is within the potential range of several sensitive bat species, some of which are known to roost in tree cavities. The project area also provides suitable nesting habitat for songbirds, which are protected under the federal MBTA. Songbird species known or suspected to occur in or adjacent to the project area include olive-sided flycatcher, willow flycatcher, and yellow warbler. Integration of **Standard Project Requirement Bio-2: Bats, Other Nesting Raptors, and Nesting Songbirds/Migratory Birds** would reduce project impacts to these species to a less than significant level.

a) (iii) **Less Than Significant Impact. Sierra Nevada Mountain Beaver and Sierra Nevada Snowshoe Hare.** Suitable habitat occurs within the project area for the SSC Sierra Nevada mountain beaver and the SSC Sierra Nevada snowshoe hare. Integration of **Specific Project Requirement Bio-3: Sierra Nevada Mountain Beaver** would reduce project impacts to this species to a less than significant level. Although suitable habitat for Sierra Nevada snowshoe hare occurs within a portion of the project area, project activities would not significantly affect this habitat. This project would produce a net increase of sensitive riparian and montane meadow habitat required by Sierra Nevada mountain beaver and Sierra Nevada snowshoe hare.

a) (iv) **Less Than Significant Impact. Southern Long-toed Salamander**. Suitable habitat occurs within the project area for the SSC southern long-toed salamander. Potential breeding habitat will be temporarily affected by project activities. Integration of **Specific Project Requirement Bio-4: Southern Long-toed Salamander** would reduce project impacts to this species to a less than significant level.

a) (v) **Less Than Significant Impact. Special Status Plant Species.** Suitable to potentially suitable habitat occurs within the project area for fifteen (15) special status plant species, as described in the Environmental Setting. Field surveys for plant species (both common and special status) occurring in and adjacent to the project area were conducted twice a month during May through August (2016) to make sure that the full suite of species was encountered in flower. Site visits occurred on May 11th and 24th, June 15th and 29th, July 13th and 26th, August 9th and 30th, 2016. Additional follow-up surveys were conducted in 2017 and 2018. Species were identified in the field from prior determination, or samples

were collected and identified using the Jepson Manual (Baldwin et al 2012), Jepson Herbarium (2019) and Calflora (2019). Although no special status plants were located during any of these past surveys, integration of **Standard Project Requirement Bio-5: Special Status Plant Species** would reduce project impacts to a less than significant level.

Introduction of new non-native invasive plants is possible through project operations. To avoid this risk, all equipment is to be cleaned according CSP policy for preventing new invasive species introductions.

b) **Less Than Significant Impact.** Implementation of this project will result in a net increase of riparian and montane meadow habitat through removal of an artificial berm and restoration of a former stream channel following removal of the Antone Dam. Minor, temporary impacts will occur during the construction phase of this project, but disturbed areas will be seeded/planted with appropriate, site-specific native species that formerly inhabited the area prior to development of the impoundment and associated water diversion. Implementation of restoration measures will reduce any potential impacts to a less than significant level.

c) **Less Than Significant Impact.** Federally protected wetlands, as defined in Section 404 of the federal CWA, have been delineated within the project area by a qualified CSP wetland specialist (Lubin 2019), as described above in the Environmental Setting. These wetlands are subject to regulation by the USACE and the RWQCB under sections 404 and 401 of the CWA, respectively. This project will require issuance of 401 and 404 permits prior to the start of work to address temporary impacts. Native sod that is disturbed during construction will be salvaged and replanted. The area that is currently open water will be replanted with salvaged material and seeded with native species, resulting in a net increase in wetland area. All permit/agreement conditions will be implemented and restoration measures described above will reduce any potential impacts to a less than significant level.

d) **No Impact.** This project would not result in substantial interference with migratory wildlife species or with established native resident or migratory wildlife corridors. Although deer inhabit the area their movements would not be impeded by the small project footprint.

A water diversion system will be installed to facilitate stream flows from upstream of the project to continue flowing downstream when dewatering of the channel occurs. Depending on flows, the channel may not be completely interrupted, but simply narrowed by means of barriers. Fish movement will not be impeded. Before installation of the gravity flow by-pass any resident fish will be removed from the channel (via electrofishing or netting) and relocated downstream from the project site by a qualified fisheries biologist, as determined by a CSP-approved biologist (**Specific Project Requirement Bio-6: Fish**). Block nets will be installed, and removed by a fisheries biologist upstream and downstream from the diversion area. Also, project actions within the bed and bank will only occur during low flows and after the fish have spawned.

Effects on resident or migratory fish or wildlife species will be temporary and less than significant.

e) **No Impact.** CSP is not subject to local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; however, CSP policy and its Mission Statement incorporate the protection of natural resources into the short-term and long-term management goals for its park units. Furthermore, CSP operates cooperatively with sister agencies and local jurisdictions to insure natural resources are protected in perpetuity. No impact.

f) **No Impact.** This project will not conflict with any Habitat Conservation Plans, Natural Communities Conservation Plans, or other approved habitat conservation plan. No impact.

STANDARD PROJECT REQUIREMENT

STANDARD PROJECT REQUIREMENT BIO-2: BATS, OTHER NESTING RAPTORS, AND NESTING SONGBIRDS/MIGRATORY BIRDS	• A CSP-approved biologist will evaluate trees for use by cavity dwelling birds and bats. If determined to be actively used for reproductive activity, removal will only occur if the tree is identified as a hazard tree by a qualified arborist or CSP-approved biologist. Tree removal will not occur during the breeding season. • Project activities will not deliberately result in failure of sensitive nesting songbirds, including olive-sided flycatcher and yellow warbler. Prior to activities occurring in spring or summer, a CSP-approved biologist will conduct surveys. Active sensitive songbird nests will be protected by a two hundred fifty (250) foot buffer from the project boundary. Any proposed project activities within this buffer area will be authorized and/or monitored by CSP-approved biologist to avoid project related nest failure. • Active nests of forest birds not otherwise classified as sensitive but protected by the Migratory Bird Treaty Act will be protected with a one hundred (100) foot buffer area from the project boundary and any project activities within this buffer area will be authorized and/or monitored by a CSP-approved biologist to avoid project related nest failure. • Raptors not specifically addressed in other Project Requirements will be protected by a quarter (.25) mile active nest buffer from April 1 to August 15, or until young fledge, as determined by a CSP-approved biologist. Any proposed project activities

	within this buffer area must receive prior authorization from a CSP-approved biologist.

STANDARD PROJECT REQUIREMENT BIO-5: SPECIAL STATUS PLANT SPECIES	• Surveys for special status plant species with a potential to occur in the project area will be conducted by a CSP-approved botanist during the appropriate blooming periods or when identity can be confirmed. All occurrences of special status plant species within the project areas will be recorded on project maps, flagged or otherwise identified on the ground. Where possible, occurrences of all special status plants will be avoided and protected from construction activities. Those locations where special status plants can't be avoided will be subject to the following conditions:
	  • Perennial Species: Prior to construction plants will be carefully excavated and transplanted nearby in suitable habitat. All transplant work will be conducted under the direction of a CSP-approved botanist. Transplanting will occur during the dormant growing season (i.e. late fall) when the plants are least disturbed and when they can be watered by winter precipitation.
	  • Annual Species: Seeds from annual special status plant species will be collected during the appropriate season and properly stored prior to ground disturbing activities. Seeds will be sown during the appropriate season in suitable locations identified by a CSP-approved botanist.

STANDARD PROJECT REQUIREMENT BIO-7: INVASIVE PLANTS	• All equipment, and tools used for project activities will be cleaned free of plant parts and soil in order to prevent the introduction and spread of invasive plants to uncontaminated areas. • A CSP-approved biologist will survey project locations prior to construction activities to ensure the area does not support invasive species that could be spread by project activities. • Project areas will be surveyed by a CSP-approved biologist in the first growing season after project activities are completed, to ensure that no weeds were introduced during project activities. • Any inadvertent weed introductions or expansions will be treated for removal.

	• Any imported new fill, such as gravel or soil, shall be from a certified weed free source where feasible.

SPECIFIC PROJECT REQUIREMENT

SPECIFIC PROJECT REQUIREMENT BIO-1: **CALIFORNIA SPOTTED OWL AND NORTHERN GOSHAWK**	• Prior to project activities within habitat identified as suitable for nesting for the California spotted owl or northern goshawk, a CSP-approved biologist will conduct protocol level surveys to ensure no reproductively active California spotted owls or northern goshawks are present. • If an active nest is detected, project activities will not be conducted within quarter (.25) miles of California spotted owl nests or within five hundred (500) feet of northern goshawk nests during the breeding season (February 15 to August 15), or until the young fledge, as determined by a CSP-approved biologist. If a CSP-approved biologist determines nests have failed, project work may commence within buffer zones prior to August 15.
SPECIFIC PROJECT REQUIREMENT BIO-3: SIERRA NEVADA MOUNTAIN BEAVER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for Sierra Nevada Mountain Beaver (SNMB) in suitable habitat within and adjacent to the project area. If occupied SNMB habitat is located then a CSP Environmental Scientist or CSP-approved biologist will conduct a training session for all construction personnel involved with the project. At a minimum, the training will include a description of SNMB and its' habitat and the measures that will be implemented to protect this species. • All noise related construction and ground disturbing activities within twenty five (25) feet of occupied habitat, as determined by the CSP-approved biologist, will occur between August 1 and January 31 to avoid the SNMB breeding season. • All vehicles and equipment will avoid SNMB habitat, as delineated by the CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-4: SOUTHERN LONG-TOED SALAMANDER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for southern long-toed salamander within the project area. Salamanders located within the project area will be

	relocated to nearby suitable habitat by the CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-6: FISH	• Prior to project activities within the active channel, fish will be excluded from the area through the use of standard methods such as seining and/or electrofishing. Standard depletion methods will be utilized to ensure maximum fish removal is attained. • Handling of fish will be minimized. • Fish will be immediately relocated to the active channel outside of the project area; they will not be retained in holding tanks for any period of time.

MITIGATION MEASURE-None

V. CULTURAL RESOURCES.

ENVIRONMENTAL SETTING

PRE-CONTACT INDIGENOUS HISTORY

The pre-European contact history of Burton Creek State Park stretches back thousands of years. The current cultural chronology for the Sierra/Lake Tahoe region recognizes six (6) phases beginning with the Tahoe Reach Phase (ca. 10,000-8,000 B.P.) characterized by Great Basin Stemmed series projectile points. Various large basalt dart points are generally indicative of the Spooner Phase (ca. 8,000-5,000 B.P.). Spooner Phase is followed by the Early Martis Period (ca. 5,000-3,000 B.P.) differentiated by Martis Contracting Stem and Martis Split Stem Points. Late Martis (ca. 3,000-1,300 B.P.) is characterized by Martis Corner-notched, Elko Corner-notched and Elko Eared points. The Martis series points are fairly large and usually associated with atlatl and dart hunting technologies. The Late Archaic is divided into the Early Kings Beach Phase (ca. 1,300-800 B.P.), typified by Rosegate and Gunther Series projectile points, and the Late Kings Beach Phase (ca. 800-150 B.P.), marked by Desert Side-notched and Cottonwood series projectile points (Elston 1986; Elston et al. 1994; Lindström and Bloomer 1994; Zeier 1992).

Euro-American History

The lands on which the Burton Creek Dam is located (South ½ Section 25, T6N. R16E) were patented to the Central Pacific Railroad (CPRR) on June 5, 1895. Although no record was found, the property appears to have been homesteaded by Antone Russi (Rossi) in the late 1880s. Russi died August 20, 1891, and his wife, Maria Wallace, married Frank X. Walker. On July 25, 1906, the estate of William S. Cothrin and Clark was ordered to convey Section 25 to Maria L. (Russi) Walker, excepting the timber. On November 26, 1906, Antone Russi's estate was conveyed to his widow Maria, and noted his six (6) children, all prominent ranching and dairying families from El Dorado and Placer counties. They grazed herds and established dairies during the summer season in the Tahoe-Truckee basins before returning to their ranchlands in the foothills (Lindström 2008:6), and it is presumed they used Antone Meadows for grazing.

Tahoe Tavern Resort and Burton Creek Water Supply

Located on a knoll above the lake, one-half (.5) mile south of Tahoe City, D.L. Bliss's Tahoe Tavern (Resort) was constructed in 1901 in conjunction with the Lake Tahoe Railway and Transportation Company's (LTRTC) narrow gauge railroad, both to cater to tourists who wished to visit the lake. Water for the resort, which rapidly expanded to include an annex in 1906, casino in 1907, and a golf course in 1917, was supplied from Burton Creek. From the beginning, with lake water contaminated by large steamers and watercraft, and insufficient water from the existing springs, the need for water to supply the Resort and the company town that supported the LTRTC line, became imperative. A supply was found in Burton Creek, an

enterprise that involved the construction of two reservoirs and several miles of connecting pipeline to serve the area. Diverting the waters of Burton Creek, the pipe went overland to Bliss Creek and traversed via pipeline to the bottom of Grove Street, and from there followed the lake bottom in a gravity feed to the Resort. An 8-inch iron pipeline, identified by Lindström in 2007, may represent a section of the Tahoe Tavern pipeline from Antone Meadows (Lindström 2008:26-27).

According to one account, the Bliss enterprise acquired water rights on Burton Creek and put in a dam at Antone Meadows in 1901. The date of dam construction was corrected to 1907 when the actual appropriation of Burton Creek was established under Application No. 12-3178, filed by the LTRTC. In a deed dated October 22, 1907 Frank X. Walker and his wife Maria L Russi granted a permanent right of way to the LTRTC for a water ditch from a point on Burton Creek in the SE ¼ of SE ¼ of Section 25, T16N, R16E, to run to Section 36 along the line of ditch survey. The deed also included the right to erect and maintain a small dam to fill the ditch (Lindström 2008:27, 29)

In 1962, upon filing of a new application, the Burton Creek Dam was reinspected by the State Water Rights Board, and the dam was found to be practically the same as first described in the initial application by the LTRTC in 1907. The report went on to note that the dam had recently been repaired with concrete building blocks, necessary because a downstream property owner had removed a portion of the dam in an unsuccessful attempt to divert water at their property line. At that time the entire flow of Burton Creek was estimated to be about 1.2 cfs, except for minor leaking through the dam that was being diverted into the pipeline to Bliss Creek. Burton Creek's source of water was from four or five good springs on land owned by Mrs. Velma Clark, upstream of the dam and below Bear Trap Cabin (Lindström 2008:30).

In 1964, the Tahoe Tavern ceased operations and was demolished. The Tahoe Tavern Golf Course had been acquired by Carl Bechdoldt, Sr. and operated by his sons, Bill and Carl, Jr. Carl, Sr. died in 1976 and the operations were taken over by Carl, Jr. Irrigation waters for the golf course had come from Burton Creek since its beginnings (Lindström 2008:21).

Burton Creek Cultural Resource Inventory

A series of cultural resource inventories conducted between 2006 and 2015 have provided one hundred percent (100%) pedestrian survey coverage of Burton Creek State Park (Jaffke 2006, Jaffke 2008, and Selverston and Rabellino 2015). Based on these surveys eighty seven (87) cultural resources have been identified within the park including eight (8) pre-contact era, sixty nine (69) historic era, six (6) multicomponent (pre-contact and historic), and four (4) unknown age. These inventories provided the baseline cultural resources information for the impact assessment.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** CSPs evaluated the Burton Creek Dam for the California Register of Historic Places (CRHR) and the National Register of Historic Places (NRHP) (Marvin 2018, see Appendix E). It determined that the dam was not eligible for the CRHR or the NRHP. The California State Historic Preservation Office concurred with these findings in a letter dated January 14, 2019. Consequently the dam is not a historic resource pursuant to PRC 15064.5 and this project will not cause a substantial adverse change.

b) **No Impact.** The cultural resource inventories did not identify any archaeological sites within the project area. The closest one is two hundred (200) feet to the north of the project area (BCRIP-07-2006, Green and Solis 2006). Over all the north bank of Burton Creek was found to be the area of highest pre-contact indigenous site density. Given the close proximity of the previously recorded site and the generally sensitivity of the area implementing Specific project Requirement **CULT-1** and Standard Project Requirement **CULT-2** will ensure that any inadvertent finds of archaeological resources are protected and no significant impact occurs to historical resources.

c) **No Impact.** Burials have not been documented or recorded in the APE; however, there is always a potential of unanticipated discoveries of human bone. If any human remains or burial artifacts were identified, implementation of Standard Project Requirement **CULT- 3** below would reduce the impact to a less than significant level.

Standard Project Requirements -

STANDARD PROJECT REQUIREMENT CULT-1:	• At the discretion of the project archaeologist, a CSP-qualified archaeologist will monitor ground-disturbing activities for this project. Particularly the work along the access route and berm removal area,

ARCHEOLOGICAL MONITORING	north of Burton Creek, will be monitored. The archaeologist will have the authority to stop construction work in the area of find and evaluate it and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5
STANDARD PROJECT REQUIREMENT CULT-2: **UNDOCUMENTED CULTURAL RESOURCES**	• In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find will stop until CSP-qualified cultural resource specialist has evaluated the find and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5
STANDARD PROJECT REQUIREMENT CULT-3: **HUMAN REMAINS OR BURIAL ARTIFACTS**	• In the event that human remains were discovered, work would cease immediately in the area of the find and the project manager/site supervisor would notify the appropriate CSP personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The CSP District Superintendent (or authorized representative) would notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative). • If the coroner determines the remains represent Native American interment, the NAHC in Sacramento to identify the most likely descendants and appropriate disposition of the remains. Work would not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects would be cleaned, photographed, analyzed, or removed from the site prior to determination. • If it is determined the find indicates a sacred or religious site, the site would be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives would also occur as necessary to define additional site mitigation or future restrictions.

Specific project Requirements – None

Mitigation Measures - None

VI. ENERGY.

ENVIRONMENTAL SETTING

State Title 20 and Title 24, under the California Code of Regulations, state new buildings constructed in California must comply with the standards contained in Title 20, Public Utilities and Energy, and Title 24, Building Standards Code, of the California Code of Regulations. These efficiency standards apply to new construction of both residential and nonresidential buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in Title 24 guidelines.

In addition to California's building energy efficiency standards, Placer County's Draft Sustainability Plan provides a reduction strategy for further reducing government operation emissions. These strategies are intended to reduce GHG emissions associated with community-wide activities.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

DISCUSSION

a) **No Impact** - Construction activities would consume energy through the operation of heavy equipment, trucks and worker traffic. The Contractor would use only as much heavy equipment as needed to construct the project, thus would not result in wasteful, inefficient, or unnecessary consumption of energy resources during the project construction. Additionally, the project is in compliance with Placer County's 2019 Draft Sustainability Plan.

b) **No Impact** – Placer County and TRPA do not have thresholds for renewable energy or energy efficiency. The project will not conflict with or obstruct any state or local plan for renewable energy or energy efficiency.

STANDARD PROJECT REQUIREMENT - NONE

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

VII. GEOLOGY AND SOILS.

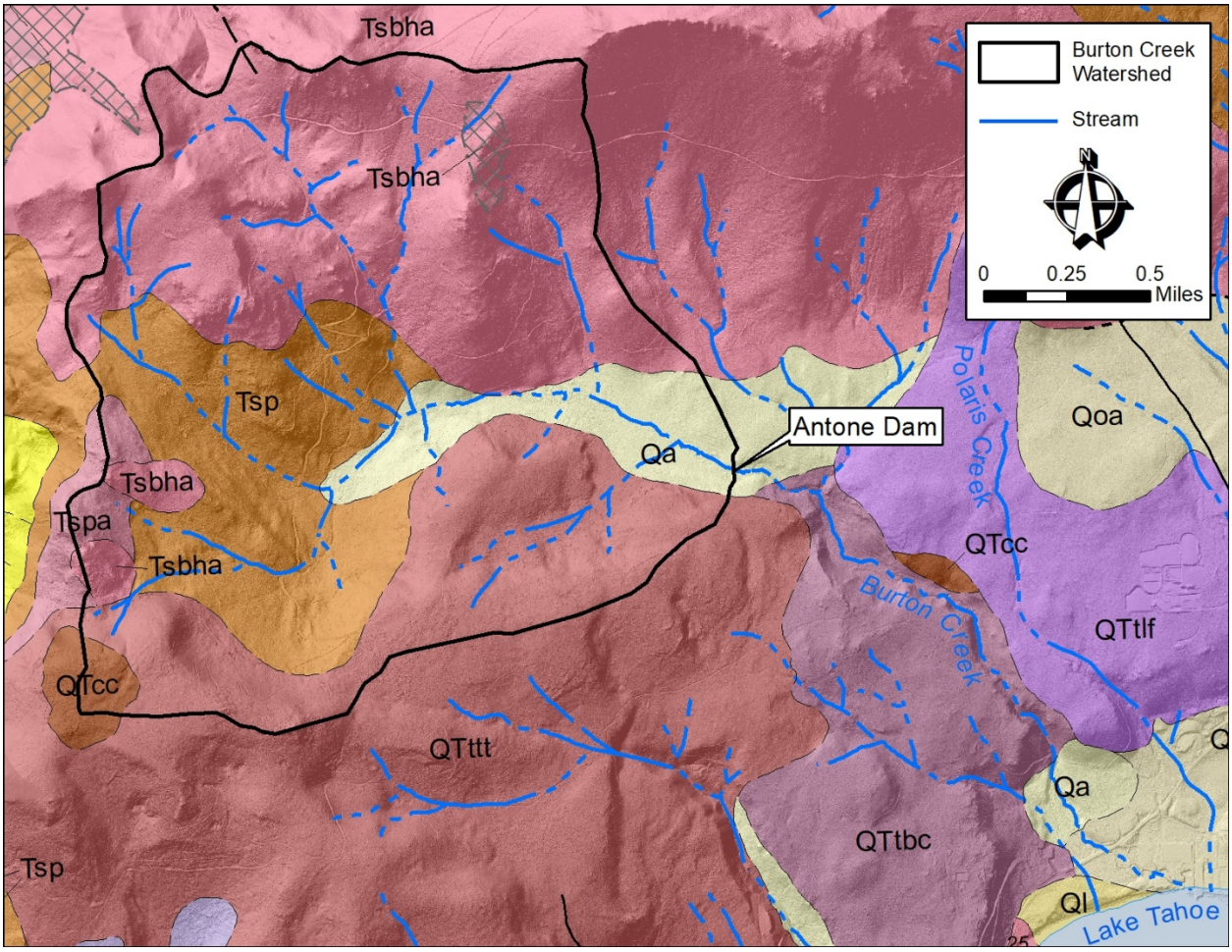
ENVIRONMENTAL SETTING

Burton Creek is located within the Lake Tahoe Basin, the most westerly basin in the transition between the Sierra Nevada, Basin, and Range provinces. The region is tectonically active with ongoing crustal extension expressed by north-northwest trending faults. Within the Tahoe graben, Cretaceous granite constitutes the basement rock with large areas overlain by Tertiary and Quaternary volcanic rocks. Regional geologic mapping indicates that the Burton Creek watershed is comprised of Tertiary and Quaternary andesitic and basaltic lava flows (Sylvester et al., 2012). The northern and western areas of the watershed including Mount Watson are comprised of a Miocene-Pliocene biotite-hornblende andesite flow or andesite tuff. The eastern areas of the watershed are comprised of two younger Quaternary olivine rich basalt flows. These basalt flows appear to serve as the primary control on the meadow elevation due to their competency and resistance to erosion. Below Antone Meadows, Burton Creek flows through a steep riffle-pool reach close to the contact between these two basalt units before descending into a steep canyon. The southern portion of the watershed is comprised of a Quaternary andesite flow. This flow is the most recent of three volcanic flows that dammed the Truckee River between 0.94 to 2.3 Ma (Kortemeir et al., 2018). The most recent damming event resulted in an increase in lake level to an elevation of approximately 6840 feet; consequently, a portion of Antone Meadows may have experienced a period of lacustrine and/or littoral sedimentary processes until the lake level receded to below the meadow elevation.

The majority of soils within upland areas of the watershed are mapped as part of either the Tahoma, Jorge, or Tahoma-Jorge complex soil units. While small differences exist between these soil units, all have a hydrologic soil group B classification. This indicates that these soils have a moderately low runoff potential when thoroughly wet and water transmission through the soil is generally unimpeded (NRCS, 2018). All three (3) soils have a similar composition, consisting of cobbles and gravels with a sandy to fine sandy loam matrix. The meadow portion of the watershed is mapped as part of the Watah peat soil unit. This soil unit has a hydrologic soil group A/D classification, which indicates that the soil has a wide range in runoff potential and permeability. This soil unit contains a significant amount of organic material and is typically wet for most of the year which makes it a good substrate for numerous species of sedges, rushes, and willows.

The project is not located near any active faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the United States Geological Survey (2019).

Figure 10 - Geologic Map of Burton Creek Watershed



Units shown on the map are: Qa – recent alluvium (Holocene); Qoa – older alluvium (Holocene and Pleistocene); Ql – lacustrine deposits (Holocene); QTcc – cinder cone deposits; QTttt – Trachyandesite of Tahoe City; QTtbc – olivine basalt of Burton Creek; QTtlf – olivine basalt of Lake Forest; Tsbha – biotite-hornblende andesite lava domes and flows; Tsp – volcaniclastic deposits: andesitic tuff, lapilli tuff, and tuff breccia; Tspa – pyroxene andesite (Sylvester and others, 2012).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** The area is not along a fault or in a landslide prone area. No structures designed for human occupancy are located at the project site.

b) **Less Than Significant**- The project will remove the deteriorated dam restore the Antone meadow. The proposed project will construct a new step pool channel that will stabilize the streambed and the meadow surface will be stabilized with erosion control fabric, seeded, and planted with native vegetation, resulting in a decrease in soil loss at the site. Soil erosion could occur during project activities during construction. To minimize the potential for erosion during or after construction activities, implementation of **Standard Project Requirement Hydro -1** (Chapter 2) and the following project requirements will result in a less than significant level.

c) **No Impact** - Project location is located on very low angle slopes and on soils that are not subject to liquefaction, nor on unstable rock. There are no structures to be impacted by subsidence. Therefore, there will be no impact from this project.

d) **No Impact** - The project is not located on expansive soils, and will not pose risk to life or property.

e) **No Impact** - No septic tanks sewers or wastewater facilities are proposed.

f) **No Impact** - No paleontological or geologic resources are known at the site.

STANDARD PROJECT REQUIREMENT -NONE

PROJECT SPECIFIC REQUIREMENTS

SPECIFIC PROJECT REQUIREMENT GEO-1: REMEDIATION OF HIGH DISTURBANCE AREAS
• All excavated areas for stream channel excavation, sill/weir construction, and floodplain construction, access roads and landing/staging areas will be revegetated or treated to recover to pre-construction conditions or better. • Where feasible access routes will be limited to previously disturbed areas. • Temporary access routes will be recontoured to restore natural drainage patterns. • All base erosion control measures must be in place, functional, and approved in an initial inspection prior to commencement of construction activities. • Disturbed areas are to be seeded, planted, and mulched.

MITIGATION MEASURE - NONE

VIII. GREENHOUSE GAS EMISSIONS.

ENVIRONMENTAL SETTING

The Global Warming Solutions Act of 2006 requires the State to implement a series of actions to achieve a reduction in GHG emissions to 1990 levels by 2020 (California Air Pollution Control Officers Association, 2008).

The statewide cap for 2020 Greenhouse Gas (GHG) emissions was set at 431 million metric tons of carbon dioxide equivalents. In 2017, emissions from GHG emitting activities statewide were 424 million metric tons of carbon dioxide equivalents. Compared to 2016, California's CDP grew 3.6 percent while carbon intensity of its economy declined by 4.5 percent (CGHGEI 2019).

As part of the implementation of actions to reduce GHG emissions, CSP has developed a "Cool Parks" initiative to address climate change and GHG emissions. Cool Parks proposes that CSP, as well as resources under its care, adapt to the environmental changes resulting from climate change. In order to fulfill the Cool Parks initiative, CSP is dedicated to using alternative energy sources, low emission vehicles, recycling and reusing supplies and materials, and educating staff and visitors on climate change (CSP, 2019).

The proposed project is located at Burton Creek State Park, within the Lake Tahoe Basin. Locally, the Placer County Air Pollution Control District (PCAPCD) is the regional environmental regulatory agency [one (1) of thirty-five (35) local air agencies in California] whose primary responsibility is controlling air pollution from stationary sources (California Air Resources Board, 2005).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

DISCUSSION

a) **Less Than Significant Impact** - According to recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." (CEQA Guidelines §15064(i)(1) and §15130).

In 2011, the CEQA Guidelines, Section 15064.4 Appendix G was modified to include thresholds of significance for Greenhouse Gases. The project would have potential significant impacts if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Due to the nature of the proposed project, CSP has determined that it is appropriate to assess potential GHG impacts qualitatively – as allowed by CEQA Guidelines §15064.4(a)2.

The proposed project could produce GHGs during fuel combustion, particularly during the grading and earthwork. Project vehicles and heavy equipment consists of an excavator, bulldozer, grader, roller, rubber tire loader, backhoe, logging truck, paver, and dump truck.

However, not all vehicles and equipment would operate simultaneously. Some equipment will only be operating during certain stages of the project depending on the nature of the work. The initial tree removal and project grading will occur for approximately one hundred and eighty (180) days but the construction-related greenhouse gas emissions will be short-term. Additionally, Antone Meadows Natural Preserve will remain conservation land during its operational phase.

b) **No Impact**. The state of California has not developed specific GHG thresholds of significance for use in preparing environmental analyses under CEQA, and TRPA has not adopted GHG thresholds to determine significance. PCAPCD has a non-residential rural significance threshold for GHG emissions. However, the Association of Environmental Professionals' document *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents,* states that emissions for criteria pollutants tend to follow similar patterns as the emissions for GHG emissions" (AEP, 2007). Therefore, it is reasonable to assume that if all other pollutants from the project are determined to be less than

significant, the CO2 emissions will also be less than significant. The proposed project will not violate Placer County's air quality standards and will not result in a cumulatively considerable increase in emissions. Additionally, the proposed project complies with Placer County's Draft Sustainability Plan. Therefore, the proposed project will not generate significant GHG emissions and will therefore not conflict with the current state and local guidelines or any applicable plans, policies or regulations concerning GHG emissions.

STANDARD PROJECT REQUIREMENT AIR-1

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE – NONE

IX. HAZARDS AND HAZARDOUS MATERIALS.

ENVIRONMENTAL SETTING

Hazardous Materials

Hazardous materials are items or substances which are flammable, reactive, corrosive, or toxic, which because of these properties, pose potential harm to the public or environment. The California Department of Toxic Substances Control (DTSC) has the responsibility of compiling information on hazardous material sites, pursuant to Government Code Section 65962.5(a). The collective list of hazardous material sites is known as the "Cortese" List. The Cortese list is accessible through the DTSC Envirostor data management system.

GeoTracker is the Water Boards' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as Leaking Underground Storage Tank (LUST) sites, Department of Defense sites, and cleanup program sites (Waterboards 2015).

Airports

There are no airports located within proximity to the project location. The closest known airport to the project site is the Truckee-Tahoe Airport in Truckee, CA. This airport is open to the public and located approximately eight (8) miles north (straight line distance) of the project location (Airnav 2019).

Fire Hazards and CSP Wildfire Management Plan

The California Department of Forestry and Fire Protection (CalFire) has a legal responsibility to provide fire protection on all State Responsibility Area lands, which are defined based on land ownership, population density and land use. Burton Creek State Park is within a State Responsibility Area. CalFire categorizes fire hazard severity for Burton Creek State Park as "Very High" (CalFire 2007).

Fire Hazards at Burton Creek State Park are managed by CSPs' Lake Tahoe Basin Wildfire Management Plan. Wildlife management involves all aspects of eliminating and containing unwanted fires including prevention, pre-suppression, and suppression activities.

Schools

There are four (4) schools within a two (2) mile proximity to the project location. North Tahoe High School and North Tahoe Middle School are approximately one and three tenths (1.3) miles away (straight-line distance), Tahoe Lake Elementary School is approximately one and eight tenths (1.8) miles away (straight line distance), and A+ Preschool is approximately two (2) miles away (straight-line distance).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death from wildland fires?	☐	☐	☒	☐

DISCUSSION

a) **Less Than Significant Impact**. During excavation, grading, and construction activities for the proposed project, it is anticipated that limited quantities of miscellaneous hazardous substances (such as petroleum-based products/fluids, solvents, and oils) will

be employed in the project and staging area. The proposed project will comply with all relevant federal, state, and local statutes and regulations related to transport, use, or disposal of hazardous materials. Therefore, impacts related to transport, use, or disposal of hazardous materials will be less-than-significant. Construction activities will incorporate project requirements and will minimize hazards resulting from routine transport, use, or disposal of hazardous materials.

b) **Less Than Significant Impact.** The operation and storage of construction equipment on the project sit has the potential to affect water quality through the accidental or inadvertent release of oil, grease, or fuel into Burton Creek or adjacent waterways. However, spill prevention measures will be in-place during construction to address the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways. Additionally, project specific requirements will require the storage of reserve fuel and the refueling of construction equipment within the staging area, and inspection of vehicles for oil and fuel leaks.

c) **No Impact**. The project area is not located within a quarter (.25) mile of an existing or proposed schools.

d) **No Impact.** The project area is not listed on the Cortese list of hazardous material sites pursuant to Government Code Section 65962.5.

e) **No Impact**. The project area is not located within an airport land use plan or within two (2) miles of a public or private use airport. Therefore, people residing or working in the project area would not be exposed to safety hazards.

f) **No Impact**. The proposed project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) **Less Than Significant Impact**. The project area is within a very high fire severity hazard area (Calfire 2007). However, the proposed project will not present new uses that will increase the fire risk. Additionally, fire suppression equipment, such as fire extinguishers, will be kept on-site during construction and in accordance with local fire codes and standards. Furthermore, HAZMAT-2 requires a Fire Safety Plan be developed by a CSP-approved forester, prior to the start of construction.

STANDARD PROJECT REQUIREMENTS

STANDARD PROJECT REQUIREMENT HAZMAT-1: **SPILL PREVENTION AND RESPONSE**	• Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination. • Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site.

	• Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but not be limited to the following: ▪ A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur; ▪ A list of items required in an on-site spill kit that will be maintained throughout the life of the project; ▪ Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project; and ▪ Identification of lawfully permitted or authorized disposal destinations.
STANDARD PROJECT REQUIREMENT HAZMAT-2: WILDFIRE AVOIDANCE AND RESPONSE	• A Fire Safety Plan will be developed by a CSP-approved forester, prior to the start of construction. • Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. • Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked on roads or staging areas to reduce the chance of fire.

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

X. HYDROLOGY AND WATER QUALITY.

ENVIRONMENTAL SETTING

Burton Creek State Park is within the watershed for Lake Tahoe. Burton Creek drains the majority of the land within the park, comprising a drainage area of approximately 1200 acres. It flows generally from north to south for approximately two (2) miles within the park. The USFS manages the watershed above the park. The creek is impounded at Antone Meadows and much of the water is diverted to the Tahoe City Golf Course. In the early 1990s, CSPs was unsuccessful in challenging the water rights associated with this diversion. The dam is located on Burton Creek at a natural geologic slope break. It creates a small pond that extends between one hundred one hundred (100) and four hundred (400) feet upstream (high and low water). An intake box just above the dam feeds a pipe that diverts water to the Tahoe City Golf Course owned by the TCPUD. The TCPUD is planning to relocate its water right to Lake Tahoe, negating the need for the dam and diversion.

The total contributing watershed area measured at the Antone Dam spillway is roughly three and three tenths (3.3) square miles, and elevations vary from 6788 feet at the spillway to more than 8400 feet along the rim of the Lake Tahoe basin. All runoff drains to Burton Creek which enters Lake Tahoe two (2) miles downstream of the spillway near the Star Harbor development and Polaris Creek wetland complex (elevation 6280 feet). Mean annual precipitation is approximately forty nine (49) inches[1]. With the exception of dirt roads and trails, the watershed is undeveloped, and land cover consists of meadow vegetation on the valley floor and pine forests on the hillsides.

No hydrologic gauging data or models are available for the project site, so peak flow rates were estimated by Balance Hydrologics using regional regression equations (Gotvald and others, 2012) in Table 7. Based on analysis of nearby streams with long-term gauging records, the regional regression equations likely over predict peak flows; however, in the absence of other models or data, the regression estimate is presented below. Throughout the Lake Tahoe Basin, peak annual flows are snowmelt-dominated, and typically occur between March through June with the occasional early winter peak from a rain-on-snow event.

Baseflow was measured in the meadow upstream of the dam on November 14, 2018 as one and two tenths (1.2) cfs. Specific conductance of streamflow was measured on the same day upstream and downstream of the dam; both readings were one hundred eighteen (118) µS/cm, which suggests that most runoff is from shallow groundwater discharge, likely fed by relatively recent precipitation and snowmelt. Several springs exist in the upper portions of Antone Meadows near the historic Bear Creek Cabin and are likely to also be significant contributors to baseflow. Flow downstream of the dam was visually estimated as less than two tenths (0.2)

[1] Estimate is based on the Parameter-Elevation Regressions on Independent Slopes Model (PRISM) climatic dataset, 800 meter resolution; includes data from 1971 to 2000.

cfs. The decrease is due to both the diversion pipe and percolation into the coarse channel substrate downstream of the dam. For the most part, Burton Creek between Antone Dam and Lake Tahoe is dry during the late summer, likely due to coarse substrate and diversion of flow into the pipe.

Table 7 – Peak Flow Estimates by Regional Regression Equations

Recurrence Interval	**Estimated Peak Flow**
years	*cfs*
2	102
5	206
10	307
25	447
50	604
100	746

Groundwater is close to the surface in the meadow area, especially in the spring and early summer, but quickly drops below the dam area where the geology changes to coarse rocky volcanic material. Throughout the rest of the park, little is known of groundwater, but no seeps or springs are evident.

Regulatory Setting

RWQCB

The Porter-Cologne Act grants the State Water Resources Control Board and each of the nine (9) RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the proposed project is the Lahontan RWQCB. Under its regulatory authority established by this act, Lahontan RWQCB has adopted a Basin Plan that contains water quality standards and control measures for the Lake Tahoe Basin. Permits required for this project from the RWQCB may include:
--National Pollution Discharge Elimination System (NPDES) Permit – This permit is required when proposing to, or discharging of waste into any surface water of the state. For discharges to surface waters, these requirements become a federal National Pollution Discharge Elimination System (NPDES) Permit from the Regional Board in the project area.
--Federal Clean Water Act (CWA) Section 401 Water Quality Certification – This certificate is required for every federal permit or license for any activity which may result in a discharge into any waters in the United States. Activities include flood control channelization, channel clearing, and placement of fill. Federal CWA Section 401 requires that every applicant for a U.S. Army Corps of Engineers CWA Section 401 must request state certification from the

Regional Board that the proposed activity will not violate state and federal water quality standards. The Regional Board reviews the request for certification and may waive certification, or may recommend either certification or denial of certification to the State Board Executive Director.

TRPA Thresholds and Other Requirements

TRPA, a bi-state agency of California and Nevada, was created in 1969 and is charged with attaining and maintaining environmental thresholds to prevent further degradation and improve the quality of Lake Tahoe and the surrounding basin. The TRPA Goals and Policies document presents the overall approach to meeting the environmental thresholds. The TRPA Code of Ordinances regulates project construction activities under Chapter 25, particularly in relation to temporary (Code 25.2.A), and permanent (Code 25.2.B) best management practices (BMPs). Temporary BMPs, in accordance with the TRPA's *Handbook of Best Management Practices* and as required in Chapter 62 of the TRPA's Code of Ordinances, shall be implemented on construction sites and maintained throughout the construction period. TRPA may permit or exempt erosion control projects, habitat restoration projects, wetland rehabilitation projects, SEZ restoration projects and similar projects within a 100-year floodplain.

Environmental Threshold Carrying Capacities

In August 1982, TRPA adopted Resolution No. 82-11, establishing environmental threshold carrying capacities as environmental standards necessary to maintain the significant resources in the region (TRPA 2002:1-1). The TRPA thresholds that deal with hydrology and flooding are those for soil conservation. TRPA has two soil conservation threshold standards:

SC-1: Impervious Coverage Threshold Standard

- Impervious cover shall comply with the Land Capability Classification of the Lake Tahoe Basin, California-Nevada, A Guide for Planning (Bailey 1974, TRPA 2002:4-7).

SC-2: Naturally Functioning SEZ Threshold Standard

- Preserve naturally functioning SEZs in their natural condition; restore 25 percent of SEZ lands identified as disturbed, developed, or subdivided to obtain a five percent total increase in the area of naturally functioning SEZ lands (TRPA 2002:4-8).

CDFW

The California Department of Fish and Game requires a Stream Alteration Agreement (SAA) for projects that will divert or obstruct the natural flow of water, change the bed, channel or bank of any stream, or use any material from a streambed. The SAA is a contract between the applicant and CDFW stating what can be done in the riparian zone and stream course.

USACE

Work in a river, stream, or wetland, may require a U.S. Army Corps of Engineers (USACE) permit. The regulatory authority of the USACE for riparian projects is based on Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Section 404 of the Clean Water Act requires Corps authorization for work involving intentional or unintentional placement of fill or discharge of dredged materials into any “waters of the United States”. The USACE also has general permits that cover restoration activities.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
1. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
2. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
3. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
4. impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

DISCUSSION

a) **Less Than Significant Impact-** Short-term adverse impacts to water quality could occur during project construction related activities in or near the stream channel. By scheduling construction of any construction activities within the floodplain and channel during low flow or no flow periods in late summer/early fall, and implementing **SPECIFIC PROJECT REQUIREMENTS GEO-1** and **WQ-1** and **STANDARD PROJECT REQUIREMENT HYDRO-1 AND STANDARD PROJECT REQUIREMENT HAZMAT-1**, the risk of water quality impacts during construction will be less than significant. The project will be required to obtain and comply with multiple permitting/regulatory agencies permits and conditions prior to project implementation. This permitting requirement is developed to minimize the risk of water quality degradation from sediment and other potential hazardous materials used during project construction.

b) **No Impact**– The project will not significantly alter or deplete local groundwater. Local groundwater may be encountered during some excavation activities; this will not impact the groundwater flow, recharge or direction within the project area. Groundwater encountered will be used for watering transplants, pumped to natural depressions or dispersed at a distance not less than one hundred (100) feet from the channel and no return flow will be allowed to the channel.

c) **Less Than Significant Impact**– The project will change the local drainage pattern at the site by removing the deteriorated dam and restoring the site to a natural channel profile and adjacent meadow floodplain. Revegetation of the disturbed areas on the steam banks and floodplain will stabilize soils. No new impervious structures are proposed, and existing coverage at the site will be slightly reduced by removing the dam and restoring the area. The project will not impede flood flows. Implementation of **STANDARD PROJECT REQUIREMENT HYDRO-1, SPECIFIC PROJECT REQUIREMENT GEO-1 AND SPECIFIC PROJECT REQUIREMENT - WQ-1** (Chapter 2) will reduce the potential impact to construction related on or off-site erosion or siltation to a less than significant level.

d) **No Impact**– The project is not located within a region that would be affected by seiche, tsunami, or mudflow.

e) **No Impact**– There are no plans in place for this area. The meadow above the dam site is within Antone Meadows Natural Preserve and protected from development.

STANDARD PROJECT REQUIREMENT

STANDARD PROJECT REQUIREMENT HYDRO-1:	• Best Management Practices (BMPs) will be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during any ground disturbing activities as approved by the Regional Water Quality Control

EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION	Board. • The CSP Contractor will install long-term erosion control measures for any areas where ground disturbing activities result in bare soil areas. The soil will be properly decompacted and mulched or revegetated with appropriate native grass seed, sterile grass seed, and/or native duff with the final selection made by a CSP-qualified representative.

SPECIFIC PROJECT REQUIREMENT

SPECIFIC PROJECT REQUIREMENT Hydro-2: **PERMIT AND SITE PLAN ADHERENCE AND IMPLEMENTATION**	• Limit disturbance area to the necessary extent as outlined in the engineered project plans. • Design, install, and maintain temporary BMPs for the protection of disturbed areas that may be subjected to erosion or surface run-off with the potential to release sediment, nutrients, or hazardous materials to surface or ground water sources. • Implement a dewatering plan for construction activities that are within the low water or bankfull channel. • Use designated and established staging, refueling, and maintenance areas for equipment that has the required BMPs to prevent the potential for contamination of surface or ground water sources. • Any stockpiled material will have appropriate BMPs according to the permitting requirements to ensure that wind and water erosion potential is eliminated. • Contractor will be familiar with the conditions of all required project permits and shall implement all required BMPs prior to commencing grading operations.

MITIGATION MEASURE-None

XI. LAND USE AND PLANNING.

ENVIRONMENTAL SETTING

Placer County- Tahoe Basin Area Plan

The proposed project is located within Placer County's Tahoe Basin Area Plan. The Tahoe Basin Area Plan and implementing regulations were adopted by Placer County in 2016 and by the TRPA in 2017. The Area Plan replaces all previous community plans, general plans, land use regulations, development standards and guidelines, and Plan Area Statements within the Tahoe Basin.

According to the Tahoe Basin Area Plan, Burton Creek State Park is within a Conservation subdistrict of the Placer County Tahoe Basin Area Plan. The planning area has a special policy to eliminate the water diversion at Antone Meadows (PCTBAP 2016).

Burton Creek State Park General Plan

Existing land use at Burton Creek State Park includes roads, trails, access points, and two natural preserves. Antone Meadows Natural Preserve is a subunit of Burton Creek State Park and is designated as a Natural Preserve to protect sensitive ecological riparian habitat.

Tahoe Regional Planning Agency

TRPA classifies land within the Tahoe Basin into Land Capability Districts (LCD) and limits the amount of development, also known as "coverage", that is allowed. The project area is mostly within LCD 1b, as verified by the TRPA in 2008 (TRPA file number LCAP2008-006).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** The project will not divide or impact established communities since none exist at the project location. The project is within Burton Creek State Park and is designated as Conservation land by the Placer County Tahoe Basin Area Plan.

b) **No Impact.** The proposed project is consistent with all applicable state and local land use plans, policies, and regulations. Furthermore, Burton Creek State Park is located within the Burton Creek Subdistrict, under the Tahoe Basin Area Plan. The planning area has a special policy to eliminate the water diversion at Antone Meadows. The proposed project will be in conformance with the Tahoe Basin Area Plan and the Burton Creek subdistrict special policy. Additionally, TRPA classifies land within the Tahoe Basin into Land Capability Districts (LCD) and limits the amount of development, also known as "coverage", that is allowed. The project area is mostly within LCD 1b, as verified by the TRPA in 2008 (TRPA file number LCAP2008-006). The only existing coverage within the project area is the staging area, the dam itself, and the dirt roads in the forest adjacent to the site that will be used for access. These existing roads will be used to transport materials and a temporary road will connect the existing road to the berm removal site. This road will be removed and restored upon project completion. The dam will be removed and the majority of the existing staging area will be removed and rehabilitated. There will be a slight reduction in coverage due to the removal of infrastructure and restoration.

STANDARD PROJECT REQUIREMENT - NONE

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE – NONE

XII. MINERAL RESOURCES.

ENVIRONMENTAL SETTING

The Surface Mining and Reclamation Act (SMARA) mandates the California Geological Survey (CGS) to provide economic-geologic expertise to assist in the projection and development of mineral resources through the land-use planning process. The primary products are mineral land classification maps and reports created by CGS' Division of Mines and Geology. Mineral land classification address specific types of mineral deposits that occur in specific geographical areas. Open-File Report 95-10 is the Mineral Land Classification report that covers Placer County's geographical area (CGS 2019).

Open-File Report 95-10, Mineral Land Classification of Placer County

Burton Creek State Park is within Mineral Resource Zone 4 (MRZ-4). MRZ-4 are areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources. The report emphasizes that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrences.

Public Resources Code § 5001.65

Commercial exploration of resources in units of the State Park system is prohibited. Additionally, CSP policy does not permit the commercial extraction of mineral resources due to impacts to resources.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Result in the loss of availability of a known mineral resource that is or would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

DISCUSSION

a-b) **No Impact** – No significant mineral resources have been identified within the boundaries of the CSP unit and all project activities will occur within CSP lands. The project will not change land use activities on the site and will therefore not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. As stated in the Environmental Setting above, under PRC § 5001.65, mining within any unit of the State Park System is prohibited.

STANDARD PROJECT REQUIREMENT - NONE

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - None

XIII. NOISE.

ENVIRONMENTAL SETTING

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech, and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain activities. The health effects of noise on people are the primary consideration of assessing potential noise impacts from a project. The effect of noise on humans can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise (such as noise measured in conjunction with a proposed new development) generally produces effects in the first two categories. Workers in industrial plants can experience noise in the last category, although project-related noise can infrequently be associated with the third category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of an individual or community to noise, but tolerance levels tend to be based on an individual's experiences with noise. Therefore, an important way of predicting human reaction to a new noise environment (i.e., post-project) is to compare it with the existing environment (pre-project) to which the community has adapted—the ambient noise level. In general, the more a new noise exceeds the previously existing noise level, the less acceptable the new noise will be judged by those hearing it. CSP does not maintain a standard for noise, typically deferring to the requirements of the local jurisdiction in which the park unit is located.

Placer County Tahoe Area Plan

This Plan identifies transportation corridors as the main source of noise in the Plan Area. Other noise sources include motorized aircraft and watercraft, construction vehicles and equipment, machinery associated with refuse collection and snow removal and off-road vehicles (PCTBPA 2017).

The Tahoe Area Plan Implementing Regulations prescribe noise development standards for the Burton Creek Subdistrict. The maximum Community Noise Equivalent Level (CNEL) for the subdistrict is fifty (50) CNEL. However, Chapter 68 of the TRPA Code of Ordinances, titled Noise limitations, exempts TRPA-approved construction or maintenance projects or the demolition of structures provided such activities are limited to the hours between 8:00 a.m. and 6:30 p.m.

Burton Creek State Park General Plan

CSP does not maintain a standard for noise, typically deferring to the requirements of the local jurisdiction in which the park unit is located. The Burton Creek General Plan requires evaluation of noise impacts for new developments that may add increased noise levels during normal operation. Projects with noise impacts are subject to timing constraints to avoid negative impacts to park visitors, neighbors, and sensitive wildlife identified as occurring in the vicinity.

Airports

There are no airports located within proximity to the project location. The closest known airport to the project site is the Truckee-Tahoe Airport in Truckee, CA. This airport is open to the public and located approximately eight (8) miles north (straight line distance) of the project location (Airnav 2019).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION

a) **Less Than Significant Impact**. Most noise will likely occur during the demolition of the dam, land clearing and grading portion of the project. However, Chapter sixty eight (68) of the TRPA Code of Ordinances, titled Noise limitations, exempts TRPA-approved construction or maintenance projects or the demolition of structures provided such activities are limited to the hours between 8:00 am and 6:30 pm The proposed project will require TRPA approval. Due to the temporary duration of exposure and with implementation of standard project requirement **Noise-1**, and Project Specific Requirement **Noise-2**, noise

impacts to those traveling through the vicinity of the project will have a less than significant impact. After the project is complete, noise levels will return to pre-construction levels and will not result in a permanent increase in ambient noise.

b) **Less Than Significant Impact**. The project will by necessity, generate ground borne vibrations and higher ground borne noise levels. Modest and temporary vibration may occur as a result of construction activities potentially including heavy equipment such as jackhammers, backhoes, and heavy trucks, and other equipment that are known to produce notable noise and ground borne vibrations. Due to the temporary duration of construction, and with implementation of Standard Project Requirement **Noise-1** and Standard Project Requirement **Noise-2**, impacts resulting from ground borne vibrations or ground borne noise levels will be less than significant.

c) **No Impact**. The project area is not located within an airport land use plan or within two (2) miles of a public or private use airport. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels.

STANDARD PROJECT REQUIREMENT

Noise	
STANDARD PROJECT REQUIREMENT NOISE-1: NOISE EXPOSURE	• Internal combustion engines used for any purpose in the project areas will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for project related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. • Stationary noise sources and staging areas will be located as far from visitors as possible. If they must be located near visitors, stationary noise sources will be muffled to the extent feasible, and/or where practicable, enclosed within temporary sheds.

PROJECT SPECIFIC REQUIREMENT

Noise	
PROJECT SPECIFIC REQUIREMENT NOISE-2: WORK HOURS	• Project related activities will generally be limited to the daylight hours, Monday through Friday. However, weekend work may be implemented to accelerate construction or address emergency or unforeseen circumstances. No work shall occur before 8:00 am or after 6:00 pm.

MITIGATION MEASURE - NONE

XIV. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

Burton Creek State Park has no permanent residents but is partially surrounded by communities and subdivisions. To the west is Tahoe City. To the east are the Highlands and Cedar Flat neighborhoods. To the south are Star Harbor and Lake Forest. To the north is mainly U.S. Forest Service land.

Antone Meadows Natural Preserve has no developments or proposed housing. The Park is categorized as a Conservation Area under the Tahoe Basin Area Plan (PCTBAP 2016). Additionally, Antone Meadows Natural Preserve is a subunit of Burton Creek State Park and designated a Natural Preserve to protect sensitive ecological riparian habitat.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a, b,) **No Impact** – The project is within a State Park. The project does not involve any increase or reduction in available housing, or infrastructure that will lead to population growth, or the displacement of people. The proposed project has no housing component and all work will take place within the confines of the park boundaries. It will neither modify nor displace existing housing either temporarily or permanently.

STANDARD PROJECT REQUIREMENT - NONE

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

XV. PUBLIC SERVICES.

ENVIRONMENTAL SETTING

Burton Creek State Park is in a high Sierra environment in the Lake Tahoe Basin. Antone Meadows Natural Preserve is a subunit of Burton Creek State Park. The entire park is undeveloped, but it is used for many recreational activities. Antone Meadows Natural Preserve has no developments or proposed housing. The park is categorized as a Conservation Area under the Tahoe Basin Area Plan (PCTBAP 2016).

Fire Protection

The California Department of Forestry and Fire Protection (CalFire) has a legal responsibility to provide fire protection on all State Responsibility Area lands, which are defined based on land ownership, population density and land use. Burton Creek State Park is within a State Responsibility Area. The area surrounding Burton Creek State Park, within the Tahoe Basin, is within the North Tahoe Fire Protection District.

Fire Hazards at Burton Creek State Park are managed by CSPs' Lake Tahoe Basin Wildfire Management Plan. Wildlife management involves all aspects of eliminating and containing unwanted fires including prevention, pre-suppression, and suppression activities.

Police Services

CSP Park Rangers are trained peace officers and serve the public in the capacity within park boundaries. The California Highway Patrol (CHP) and the Placer County Sheriff's Tahoe Station, assist Park Rangers with the protection of the park and search and rescue coordination.

Schools

There are four (4) schools within a two (2) mile proximity to the project location. North Tahoe High School and North Tahoe Middle School are approximately one and three tenths (1.3) miles away (straight-line distance), Tahoe Lake Elementary School is approximately one and eight tenths (1.8) miles away (straight line distance), and A+ Preschool is approximately two (2) miles away (straight-line distance).

Parks

Burton Creek State Park is in a high Sierra environment in the Lake Tahoe Basin. Antone Meadows Natural Preserve is a subunit of Burton Creek State Park. The preserve was established to protect a Sierra mountain meadow and consequently, the water quality of waters flowing into Lake Tahoe.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** The project will have no impact on the Wildfire Management Plan for Burton Creek State Park. Implementation of **Hazmat-2** during construction will be in accordance with CSPs' Wildfire Management plan for Burton Creek State Park. The proposed project will not impact police services provided by CSP Park Rangers or disrupt school services. Additionally, the proposed project is CSP approved and will not result in an impact to the park or other surrounding public facilities.

STANDARD PROJECT REQUIREMENT - HAZMAT-2

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

XVI. RECREATION.

ENVIRONMENTAL SETTING

Burton Creek State Park is located on the outskirts of Tahoe City and is popular with local residents, but does not have developed recreation facilities. The park provides six (6) miles of unpaved roadways for non-motorized visitor use such as hiking, biking, and snowshoeing and cross-country snow skiing in the winter. One of these roadways provides access to the project site, which encompasses a deteriorating concrete dam that impounds less than an acre of water. Some park visitors stop at the dam to allow their dogs to access the water. During construction, the road accessing the Antone Dam and adjoining Antone Creek will be subject to periodic closures during construction. Signage notifying park visitors of periodic road closures will be posted and alternative routes, if available, will be identified.

Other nearby park units include Tahoe State Recreation Area a quarter (.25) miles east of Tahoe City), Ed Z'berg-Sugar Pine Point State Park [ten (10) miles south of Tahoe City], and D.L. Bliss State Park [eighteen (18) miles south of Tahoe City]. All three parks provide overnight camping facilities and easy access to Lake Tahoe.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

DISCUSSION

a-b) **No Impact**- The project scope does not include the construction of recreational facilities other than the installation of an interpretive sign. Construction of the project would not increase use of the site.

STANDARD PROJECT REQUIREMENT – During construction, bike and pedestrian access to adjacent trails will be clearly delineated and signed. Periodic road closures will be posted and alternative routes, if available will be identified.

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

XVII.TRANSPORTATION.

ENVIRONMENTAL SETTING

Burton Creek State Park is located north of Tahoe City. Antone Meadows is located along the northeastern most section of Burton Creek State Park. There are six (6) miles of unpaved roadway that are available for recreational activities such as hiking, mountain biking, and cross-country skiing. Burton Creek State Park is accessible by bicycles and pedestrians traveling from the north and South along a bicycle lane on State Route-28 (SR-28) that connects Kings Beach State Recreation Area to Tahoe City. Motorized vehicles are not allowed in the park.

Traffic

In 2017, Caltrans conducted traffic counts for SR-28 at postmile 0.83, at Tahoe State Recreation Area. Burton Creek State Park is approximately one (1) mile north of this location, along SR-28. The traffic count is an average of vehicular traffic at a given intersection. Based on the most recent Annual Average Daily Traffic (AADT) count for 2017 (at SR 28, postmile 0.86); the traffic count ahead of Tahoe State Recreation Area is an annual average of 12,300 vehicles per day.

Placer County's Tahoe Basin Area Plan maintains a list of Level of Service at key highway intersections. Level of Service (LOS) is a measure of the quality of presentation of roadway elements, ranging from LOS A (free-flow conditions with minimal delay) to LOS F (stop-and-go conditions, with extensive delays). Burton Creek State Park is adjacent to SR-28 and Grove Street intersection. The LOS for SR-28 and Grove Street intersection is an F in winter and F in summer. The LOS F reflects the long delays for movement onto the state highway at stop-sign-controlled intersections along SR-28. The LOS F condition occurs on peak summer days (generally early July through mid-August) from approximately 10:00 am to 4:00 pm (TBAP 2017).

Public Transit

The Tahoe Truckee Area Regional Transit (TART) system is operated by the Placer County Department of Public Works and Facilities. The Tahoe City Transit Center, located along State Route 89 (SR-89) just south of the Truckee River in Tahoe City, provides a hub for all TART routes, including the SR-28 route which operates between Tahoma to Incline Village, NV.

Airports

There are no airports located within proximity to the project location. The closest known airport to the project site is the Truckee-Tahoe Airport in Truckee, CA. This airport is open to the public and located approximately eight (8) miles north (straight line distance) of the project location (Airnav 2019).

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

DISCUSSION

a) **Less Than Significant Impact.** As noted in the Placer County Tahoe Area Basin Plan, the LOS for SR-28 and Grove Street intersection is F in summer, when construction would be anticipated. The traffic count ahead of Tahoe State Recreation Area is an annual average of 12,300 vehicles per day. CSP estimates fifty (50) to eighty (80) truckloads of fill and rock materials transported to or exported from the project area over a six-month period. Thus, traffic resulting from construction personnel and debris removal will have a negligible contribution on the amount of traffic traversing SR-28. Furthermore, motorized vehicles are not allowed in the park, with the exception of CSPs approved construction related activities. The proposed project is relatively minor in scope and located in a rural area, within Burton Creek State Park.

b) **Less Than Significant Impact.** CEQA Guidelines section 15064.3, subdivision (b)(1) lists criteria for analyzing transportation impact related to land use projects. Generally, projects within one-half (.50) mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact [14 CCR Section 15064.3 (b)(1)]. The proposed project is located at Antone Meadows Natural Preserve, which is approximately one and a half (1.5) miles away from the Rocky Ridge Rd Tahoe Truckee Transit stop at SR-28.

c) **No Impact.** The proposed project is located at Antone Meadows Natural Reserve, within Burton Creek State Park. The project site is located approximately one and a half (1.5) miles away from SR-28. Alteration of transportation features such as highways or County roads are not within the scope of this project. Although the project site will be closed to the public, heavy equipment has the potential to create conflict with recreation users within the Park. Strict adherence to **SPR-Traffic 1** will reduce potential impacts.

d) **No Impact.** The project area is located in an undeveloped portion of Burton Creek SP. The project site is accessible by existing gated dirt roads, from past logging activities that crisscross the park. The dirt roads are used by the public for non-motorized recreational activities and by park staff for maintenance and enforcement activities. During construction, CSPs proposes to use the dirt roads as access roads for material and personnel transport. Dirt roads will remain open to the public, but will be subject to temporary closures. Additionally, implementation of **Hazmat-2** will be in accordance with CSPs' Wildfire Management plan for Burton Creek State Park.

STANDARD PROJECT REQUIREMENT: TRAFFIC-1

STANDARD PROJECT REQUIREMENT TRAFFIC-1: TRAFFIC CONTROL PLAN	• Prior to commencing construction, the Contractor shall prepare a traffic control plan that includes the following components: Exclusionary fencing will be placed along the project limits, as necessary, to exclude non-construction personnel from the construction area. • Speed limits shall be set for heavy equipment traveling to and from the project site by the State's Representative.

SPECIFIC PROJECT REQUIREMENT-NONE

MITIGATION MEASURE-None

XVIII.TRIBAL CULTURAL RESOURCES.

ENVIRONMENTAL SETTING

CSPs is required to consult with Native American tribes regarding projects that may impact tribal cultural resources under PRC 21080.3.1(b)(d). Additionally, CSPs has requirements to consult tribes under E.O. W-26-92.

Under PRC 21074 tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a tribe. Important tribal cultural resources can include, but are not limited to, archaeological resources. Other places and landscapes can be considered tribal cultural resources. If tribal cultural resources are identified during consultation, the agency should evaluate them for the California Register of Historical Resources (PRC 21080.3.2(a)).

Burton Creek lies within the ethnographic territory of the Washoe Tribe of Nevada and California. In the 1850s, when non-natives began moving into their territory, the Washoe homeland surrounded Lake Tahoe and the mountains and eastern front of the Sierra Nevada, south from Honey Lake, through Antelope Valley and the West Fork of the Walker River; and east from the western slopes, to the top of the Pine Nut Mountains in the Great Basin (d'Azevedo 1986; Downs 1966; Nevers 1976; Price 1980; Stewart 1966). At the heart of this territory are Lake Tahoe and the upper reaches of the Truckee, Carson, and Walker Rivers that flow east into Northern Paiute traditional territory; Sierra Valley with the headwaters of the Middle Fork of the Feather River, that flows west through Maidu country, is also in their homeland.

The Washoe, or Wa She Shu (the people), continue to describe their ancestry and history within this larger territory in terms of three geographic areas that their ancestors described to anthropologists. The Páwa'lu' or "valley people," are Wa She Shu from Carson Valley; to their south are Hángalelti', or "southerners;" and to the north, are Wélmeltí, or "northerners." Wélmeltí traditional territory encompasses Truckee-Donner and Sierra Valley, the Truckee Meadows (Reno), Washoe Valley; and Eagle Valley (Carson City), east to Dayton. Long Valley to Honey Lake and the eastern part of the Truckee Meadows are also claimed by Tasiget Northern Paiute, as part of their territory (Rucks 2006).

All three Wa She Shu groups accessed Lake Tahoe. Hángaleltí and Páwa'lu' overlapped in the southern end of the Lake Tahoe basin. Wélmeltí frequented the north end, with camps along the shore from Blackwood Creek on the west, to Glenbrook on the east. Wélmeltí are the people who frequented Burton Creek (Freed 1966; Nevers 1976).

Locations of cultural significance to contemporary Wélmeltí that reflect these cultural values, were identified in Burton Creek State Park during field interviews with tribal elders and verified as areas of concern to the Washoe Tribe by the Washoe Cultural Committee. Additional information is in confidential files maintained by the Sierra District Archaeologist.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☒
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** No tribal cultural resources are present within the project area. The Burton Creek/Antone Meadows locality is generally important to the Washoe tribe for its plant and animal resources. This restoration project will improve the quality and abundance of those resources. The Sierra District Archaeologist, Denis Jaffke, initiated project consultation with the Washoe Tribal Historic Preservation Officer (THPO) Darrell Cruz via email. In an email communication, dated May 23, 2019 the THPO requested that a Washoe tribal monitor be present during the construction of the project. Implementing CULT-1 CULT-2 and CULT-3, listed in the Cultural Resources section, will ensure that project will not impact tribal cultural resources.

STANDARD PROJECT REQUIREMENT CULT-2, CULT-3

PROJECT SPECIFIC REQUIREMENT CULT-1

MITIGATION MEASURE - NONE

XIX. UTILITIES AND SERVICE SYSTEMS.

ENVIRONMENTAL SETTING

ENVIRONMENTAL SETTING

Burton Creek State Park is in a high Sierra environment in the Lake Tahoe Basin. Antone Meadows Natural Preserve is a subunit of Burton Creek State Park. The entire park is undeveloped, but it has many recreational uses. Antone Meadows Natural Preserve has no developments or proposed housing and is categorized as a Conservation Area under the Tahoe Basin Area Plan (PCTBAP 2016).

Tahoe City Public Utility District

The Tahoe City Public Utility District (TCPUD) relies on Burton Creek as the primary supply for irrigation of the Tahoe City Golf Course (TCGC). The TCGC use a combination of the domestic water supply and a pre-1914 appropriative water right to Burton Creek, at Antone Meadows Natural Preserve, for irrigation (TCPUD 2015). The TCPUD is interested in relocating their water right to Lake Tahoe, which would then allow CSP to remove the dam. They filed a NOD for that project in 2015.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LES S THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or	☐	☐	☒	☐

	otherwise impair the attainment of solid waste reduction goals?				
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

DISCUSSION

a-c) **No Impact.** Antone Meadows Natural Preserve is a subunit within Burton Creek State Park and entirely undeveloped. The Park is categorized as a Conservation Area under the Tahoe Basin Area Plan (PCTBAP 2016). Additionally, wastewater generated from construction activities will be temporary and hauled offsite.

d) **Less Than Significant Impact.** The proposed project will not significantly increase the park's waste generation or solid waste disposal needs.

e) **No Impact.** Waste generated by the project will be stored in appropriate receptacles and removed daily or as needed.

STANDARD PROJECT REQUIREMENT -NONE

SPECIFIC PROJECT REQUIREMENT -NONE

MITIGATION MEASURE-None

XX. WILDIFIRE.

ENVIRONMENTAL SETTING

The California Department of Forestry and Fire Protection (CalFire) list the fire hazard severity for Burton Creek State park as “Very High” and designate it a State Responsibility Area in the event of a fire (CalFire 2007). The project setting is montane meadow surrounded by coniferous forest. Vegetation within this project area also consists of mixed conifer stands, in younger successional stages of fir and pine species, eastside pine stands, and montane riparian habitat. Sources of wildfire in the Lake Tahoe Basin can be from natural and human causes. The natural cause of fire is lightning. Lightning is associated with thunderstorms that occur in the summer and fall seasons. The unnatural source of wildlife is generally human caused at urban-wildlife interface, escaped campfires, smoking, etc. (CSP 2006).

Fire hazards at Burton Creek State Park are managed by CSPs’ Lake Tahoe Basin Wildfire Management Plan. Wildfire management involves all aspects of eliminating and containing unwanted fires including prevention, pre-suppression, and suppression activities. Additionally, Burton Creek State Park has an on-going fuels management program (State Clearinghouse Number 2012042002). The program uses prescribed fire for environmental restoration and reduction of fuel loads and wildfire hazard.

WOULD THE PROJECT:	POTENTIALLY SIGNIFICANT IMPACT	LES S THAN SIGNIFICANT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

DISCUSSION

a) **No Impact.** The project will have no impact on the Wildfire Management Plan for Burton Creek State Park. Implementation of **Hazmat-2** during construction will be in accordance with CSPs' Wildfire Management plan for Burton Creek State Park.

b) **No Impact.** The project will have no impact on wildfire risks. Implementation of **Hazmat-2** during construction will ensure a Fire Safety Plan will be developed and approved by a CSP-approved forester prior to the start of construction.

c) **No Impact.** The project will keep a vehicle pullout and turnaround near the creek crossing for creek water drafting access. Additionally, implementation of **Hazmat-2** during construction will be in accordance with CSPs' Wildfire Management plan for Burton Creek State Park.

d) **No Impact.** The project will have no effect on potential wildfire intensity or fire effects. Implementation of **Hazmat-2** during construction will be in accordance with CSPs' Wildfire Management plan for Burton Creek State Park.

STANDARD PROJECT REQUIREMENT

STANDARD PROJECT REQUIREMENT HAZMAT-2: WILDFIRE AVOIDANCE AND RESPONSE	• A Fire Safety Plan will be developed by a CSP-approved forester, prior to the start of construction. • Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. • Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked on roads or staging areas to reduce the chance of fire.

PROJECT SPECIFIC REQUIREMENT - NONE

MITIGATION MEASURE - NONE

CHAPTER 4
MANDATORY FINDINGS OF SIGNIFICANCE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

DISCUSSION

a) **Less Than Significant Impact.** As discussed in Section IV of this document, all potential biological related impacts will be less than significant with implementation of the biological resource project requirements. As identified in Section V of this document, State Parks evaluated the Burton Creek Dam for the California Register of Historic Places (CRHR) and the National Register of Historic Places (NRHP). CSP determined that the dam was not eligible for the CRHR or the NRHP. The California State Historic Preservation Office concurred with these findings in a letter dated January 14, 2019. Consequently, the dam is not a historic resource pursuant to PRC 15064.5 and this project will not cause a substantial adverse change. In the event archaeological artifacts are found, project requirements would stop work until the resource could be evaluated.

b) **Less Than Significant Impact.** The project does not have impacts that are individually limited, but cumulatively considerable. Potential air quality, greenhouse gas emissions, hydrology, and traffic impacts are discussed in the respective sections above. The project will not increase the demands for public services, increase traffic, air pollutions, or contribute to cumulative effects when future developments in Placer County are considered.

c) **Less Than Significant Impact.** All impacts identified in this ND are less than significant, with project requirements, and do not require mitigation. Therefore, the proposed project would not result in environmental effects that cause substantial adverse effects on human beings either directly or indirectly.

CHAPTER 5
SUMMARY OF MITIGATION MEASURES

The following mitigation measures will be implemented by CSP as part of the Antone Dam Removal and Meadow Restoration Project.

AESTHETICS

MITIGATION MEASURES

- NO MITIGATION REQUIRED

AGRICULTURAL RESOURCES

MITIGATION MEASURES

- NO MITIGATION REQUIRED

AIR QUALITY

MITIGATION MEASURES

- NO MITIGATION REQUIRED

BIOLOGICAL RESOURCES

MITIGATION MEASURES

- NO MITIGATION REQUIRED

CULTURAL RESOURCES

MITIGATION MEASURES

- NO MITIGATION REQUIRED

ENERGY

MITIGATION MEASURES

- NO MITIGATION REQUIRED

GEOLOGY AND SOILS

MITIGATION MEASURES

- NO MITIGATION REQUIRED

GREENHOUSE GAS EMISSIONS
MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

HAZARDS AND HAZARDOUS MATERIALS
MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

HYDROLOGY AND WATER QUALITY

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

LAND USE AND PLANNING

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

MINERAL RESOURCES

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

NOISE
MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

POPULATION AND HOUSING

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

PUBLIC SERVICES

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

RECREATION

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

TRANSPORTATION

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

TRIBAL CULTURAL RESOURCES

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

UTILITIES AND SERVICE SYSTEMS

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

WILDFIRE

MITIGATION MEASURES

- **NO MITIGATION REQUIRED**

CHAPTER 6
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CHAPTER 7
REPORT PREPARATION

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Appendix A

Design Drawings

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Appendix B

Special Status Species Lists

Table 8.1 Special-Status Plant Species Evaluated for the Antone Dam Removal Project							
Scientific Name	**CNPS Rare Plant Rank**	**CESA**	**FESA**	**Elevation minimum (m)**	**Elevation maximum (m)**	**Habitat and Blooming Period**	**Potential for occurrence in the project**
Arabis rectissima var. simulans (= Boechera rectissima)				1100	2800	Rocky slopes in open conifer forest. May-July.	**Not likely to occur.** Habitat unlikely in or near project area. Project and areas are in meadow, pond, and mesic forest habitat.
Arabis rigidissima var. demota	1B.2	--	--	2255	2560	Rocky areas in open conifer forest. July-August.	**Not likely to occur.** Habitat unlikely in or near project area. Project and areas are in meadow, pond, and mesic forest habitat. Lower elevation boundary for the plant above park's maximum elevation.
Artemisia tripartita ssp. tripartita	2B.3	--	--	2200	2600	Deep loam soils, igneous in nature. August.	**Not likely to occur.** Habitat unlikely in or near project area. Project and area soils are volcanic in nature. Mesic habitat. Elevational range of the plant outside of the border of the park.
Astragalus austiniae	1B.3	--	--	2440	2965	Exposed ridges, meadows, above timberline. July-September.	**Not likely to occur.** Elevational range of the plant outside of the border of the park.
Astragalus whitneyi var. lenophyllus	4.3	--	--	2135	3050	Open, rocky places. July-August.	**Not likely to occur.** Plant's habitat outside of the project boundary.
Boechera tiehmii				3000	3600	Rock outcrops, gravelly soil. June-August.	**Not likely to occur.** Elevational range of the plant outside of the border of the park.

							Habitat not present in the project area.
Boechera tularensis				2400	3200	Rocky slopes in montane, subalpine habitats. June-July.	**Not likely to occur.** Elevational range of the plant outside of the border of the park. Habitat not present in the project area.
Botrychium ascendens	2B.3	--	--	1115	2700	Moist meadows, open woodland near streams or seeps. July-August.	**Could occur.** Small patches of habitat may be present in the project area.
Botrychium crenulatum	2B.2	--	--	1268	3280	Saturated hard water seeps and stream margins. June-September.	**Could occur.** Small patches of habitat may present in the project area.
Botrychium minganense	2B.2	--	--	1455	2180	Meadows, open forest along streams or around seeps. July-September.	**Could occur.** Small patches of habitat may present in the project area.
Botrychium montanum	2B.1	--	--	1465	2180	Shady conifer woodland, especially under Calocedrus along streams. July-September.	**Could occur.** Small patches of habitat may present in the project area.
Bruchia bolanderi	4.2	--	--	1700	2800	Meadows and seeps, upper and lower montane coniferous forest. Disturbed, moist organic soil, roadside ditches. Moss.	**Could occur.** Small patches of habitat may present in the project area.
Carex davyi	1B.3	--	--	1500	3200	Dry often sparse meadows, slopes. May-August.	**Could occur.** Small patches of habitat may present in the project area.

Carex lasiocarpa	2B.3	--	--	1700	2100	Bogs and fens, mashes. Lake, pond shores, generally standing water. June-July.	**Not likely to occur.** Species has not been found in the Tahoe basin (Dean&McNair, 2017).
Carex limosa	2B.2	--	--	1200	2700	Sphagnum bogs. June-August.	**Not likely to occur.** Habitat not present in the project area.
Ceanothus fresnensis	4.3	--	--	900	2103	Rocky slopes, flats, conifer forest. May-July.	**Not likely to occur.** Has been found on the West slope of Sierra Nevada.
Chaenactis douglasii var. alpina				3000	3400	Rocky or gravelly ridges, talus, fell-fields, crevices. July-September.	**Not likely to occur.** Elevational range of the plant outside of the border of the park. Habitat not present in the project area.
Claytonia megarhiza				2600	3300	Subalpine, alpine gravel, talus, crevices. May-August.	**Not likely to occur.** Elevational range of the plant outside of the border of the park. Habitat not present in the project area.
Cryptantha crymophila				2600	3200	Rocky volcanic semi-barren soils, scree. July-August.	**Not likely to occur.** Elevational range of the plant outside of the border of the park. Habitat not present in the project area.
Cryptantha glomeriflora	4.3	--	--	1800	3750	Open slopes, dry meadows, creekbeds. June-September.	**Could occur.** Habitat potentially present in the project area.
Draba asterophora var. asterophora				2600	3300	Rock crevices, alpine barrens, talus. June-August.	**Not likely to occur.** Elevational range of the plant outside of the border of the park.
Draba cruciata				2500	3050	Gravelly slopes, subalpine areas. July-August.	**Not likely to occur.** Elevational range of the plant outside of the border of the park. Occurs in Southern Sierra Nevada Mountains.

Epilobium oreganum	1B.2	--	--	500	2240	Bogs, small streams. Lower montane coniferous forest, upper montane coniferous forest. June-September.	**Could occur.** Suitable habitat present in the project area.
Erigeron eatonii var. nevadincola	2B.3	--	--	1400	2900	Open grassland, rocky flats, generally in sagebrush or pinyon/juniper scrub. May-July.	**Not likely to occur.** Habitat not present in the project area.
Erigeron miser	1B.3	--	--	1840	2620	Rocky sites. June-October.	**Not likely to occur.** Habitat not present in the project area.
Eriogonum luteolum var. saltuarium	1B.2			1700	2400	Granitic sand. July-September.	**Not likely to occur.** Habitat not present in the project area.
Eriogonum umbellatum var. torreyanum	1B.2	--	--	1855	2620	Sand or gravel. July-September.	**Not likely to occur.** Habitat not present in the project area.
Glyceria grandis	2B.3	--	--	15	1980	Wet places, meadows, lake and stream margins, bogs. June-August.	**Not likely to occur.** Has not been recorded in the Tahoe basin. Previous determination from the south shore of Lake Tahoe has been redetermined to Glycerial elata.
Hackelia amethystina	4.3	--	--	1500	2315	Meadows, forest clearings, roadsides, occasionally along streambanks. June-August.	**Not likely to occur.** Although habitat is present, only one specimen has been collected in the Tahoe Basin in 1912.
Hulsea brevifolia				1500	2700	Gravelly soils, montane forest, granitic soils. June-August.	**Not likely to occur.** Habitat not present in the project area. Species known from southern Sierra Nevada.
Ivesia sericoleuca	1B.2	--	--	1310	2200	Dry, generally volcanic meadows. May-October.	**Could occur.** Small patches of habitat present in the project area.

Juncus luciensis	1B.2	--	--	300	2040	Wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides. April-July.	**Could occur.** Habitat present in the project area.
Lewisia kelloggii ssp. hutchisonii				1800	2135	Decomposed granite, slate, volcanic rubble, conifer forest. June-Agust.	**Not likely to occur.** Known from the west slope of the Sierra Nevada Range.
Lewisia kelloggii ssp. kelloggii				1370	2360	Decomposed granite, volcanic ash, rubble, conifer forest. June-Agust.	**Not likely to occur.** Habitat not present in the project area. Species known from the west slope of Sierra Nevada.
Lewisia longipetala	1B.3	--	--	2500	2925	Granitic soil in alpine boulder and rock field. Subalipine coniferous forest (mesic, rocky). July-September.	**Not likely to occur.** Elevational range of the plant is outside of the park boundary.
Meesia longiseta						Rich fens.	**Not likely to occur.** Habitat not present in the project area.
Meesia triquetra	4.2	--	--	1300	2953	Rich fens. July.	**Not likely to occur.** Habitat not present in the project area.
Meesia uliginosa						Rich fens.	**Not likely to occur.** Habitat not present in the project area.
Nardia hiroshii	2B.3	--	--			Damp soil, granitic bedrock. Meadows and seeps.	**Not likely to occur.** The soils in the project area are volcanic.
Phacelia stebbinsii	1B.2	--	--	610	2010	Gravelly soils, meadows, conifer forest. May-July.	**Not likely to occur.** Species known from the west slope of the Sierra Nevada.
Potamogeton epihydrus	2B.2	--	--	369	2172	Shallow water, ponds, lakes, streams. July-September.	**Could occur.** Habitat present in the project area.

Potamogeton robbinsii	2B.3	--	--	1530	3300	Deep water, lakes. July-August.	**Not likely to occur.** Habitat not present in the project area.
Pseudostellaria sierrae	4.2	--	--	1225	2194	Meadows, dry understory of mixed oak or conifer forest. May-August.	**Not likely to occur.** Plant known from the west slope of the Sierra Nevada.
Rhamnus alnifolia	2B.2	--	--	1370	2130	Wet meadow edges, seeps, stream sides. May-July.	**Could occur.** Habitat present in the project area.
Rorippa subumbellata	1B.1	CE	--	1890	1905	Sandy lake shores. May-September.	**Not likely to occur.** Only grows on the beaches of Lake Tahoe.
Scutellaria galericulata	2B.2	--	--	0	2100	Wet sites, meadows, streambanks, conifer forest. June-September.	**Could occur.** Small patches of habitat present in the project area.
Sphaeralcea munroana	2B.2	--	--	2000	2000	Dry, open places. May-June.	**Not likely to occur.** Habitat not present in the project area.
Stuckenia filiformis ssp. alpina	2B.2	--	--	300	2150	Shallow, clear water of lakes, drainage channels. May-July.	**Could occur.** Habitat present in the project area.
Subularia aquatica ssp. americana	4.3	--	--	1900	3100	Shallow lake margins, streambanks, wet sedge meadows, muddy flats, salt marshes. July-September.	**Could occur.** Habitat present in the project area.
Viola tomentosa	4.2	--	--	1435	2000	Dry, gravelly places in open pine forest (Jeffrey, lodgepole, ponderosa). May-October.	**Not likely to occur.** Plant known from the west slope of the Sierra Nevada.

Table 8.2
Special-Status Wildlife Species Evaluated for the Antone Meadows Dam Removal Project

Common and Scientific Name	Regulatory Status[1]	Habitat	Potential for Occurrence
California spotted owl (*Strix occidentalis occidentalis*)	SSC FSS	Mature and old-growth forest stands	**Could occur.** Unlikely nester, no suitable habitat present in project area, but known to occur in proximity to project area.
California wolverine (*Gulo gulo*)	CT FC	Mixed conifer, wet meadow, montane chaparral	**Not likely to occur.** Highly elusive species, closest confirmed sighting >10 miles to north.
Gray-headed pika (*Ochotona princeps schisticeps*)		Rocky talus fields	**Not likely to occur.** Suitable habitat is not present in the project area.
Great Basin rams-horn (*Helisoma newberryi*)	FSS	Large lakes and spring-fed streams. Areas that have well-oxygenated but soft substrate and clear, cold, slowly flowing water.	**Not likely to occur.** Suitable habitat is not present in the project area.
Lahontan cutthroat trout (*Oncorhynchus clarkia henshawi*)	FT	Cold water habitats, including streams and rivers. Flowing water with stable, vegetated banks and riffle-run areas.	**Not likely to occur.** Suitable habitat present, but has not been present in nearby watersheds in recent years.
Lake Tahoe amphipod (*Stygobromus lacicolus*)	G1	Endemic to the deep waters of Lake Tahoe.	**Not likely to occur.** Suitable habitat is not present in the project area.
Lake Tahoe benthic stonefly (*Capnia lacustra*)	G1	Endemic to the deep waters of Lake Tahoe.	**Not likely to occur.** Suitable habitat is not present in the project area.
Lake Tahoe stygobromid (*Stygobromus tahoensis*)	G1	Endemic to the deep waters of Lake Tahoe.	**Not likely to occur.** Suitable habitat is not present in the project area.
Long-legged Myotis (*Myotis Volans*)	WBWG H	Woodland and forest habitats above 1200 m (4,000 ft.); Also forages in chaparral, coastal scrub, Great Basin shrub habitats.	**Could occur.** Suitable habitat present.
Morrison bumble bee (*Bombus morrisoni*)	IUCN VU	Open scrub land. Forages on milkweed, thistle, lupine, and rabbit brush.	**Not likely to occur.** Suitable habitat is not present in the project area. The nearest occurrence is from 1915 in Truckee.
North American porcupine (Erethizon dorsatum)	IUCN LC	Broadleaved upland forest, Cismontane woodland, Closed-cone coniferous forest, Upper montane coniferous forest.	**Could occur.** Suitable habitat present near project area.
Northern goshawk (*Accipiter gentilis*)	SSC FSS	Mature and old-growth forest stands	**Known to occur.** Two nesting territories nearby and will likely forage near the project area.
Olive-sided flycatcher	SSC	Montane conifer forest	**Known to occur.** Suitable habitat is

(*Contopus cooperi*)			present in the project area.
Sierra marten (*Martes americana sierrae*)	FSS	Mixed conifer forest with greater than 40% crown closure, large trees and snags	**Not likely to occur.** Suitable habitat is not present in the project area.
Sierra Nevada mountain beaver (*Aplodontia rufa californica*)	SSC	Narrow, shallow stream with willow, alder, fir, and aspen	**Could occur.** Suitable habitat present.
Sierra Nevada red fox (*Vulpes vulpes necator*)	CT FSS	Subalpine forests, mixed conifer, lodgepole pine, riparian scrub, and meadows	**Not likely to occur.** Limited suitable habitat is present in the project area, and low population numbers.
Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*)	SSC	Montane riparian with alder and willow thickets and young conifer thickets with chaparral	**Known to occur.** Suitable habitat is present.
Sierra Nevada yellow-legged frog (*Rana sierrae*)	FE, CT	Inhabits lakes, ponds, meadow streams, isolated pools, and sunny riverbanks in the Sierra Nevada Mountains. Open stream and lake edges with a gentle slope up to a depth of 5-8 cm**.** seem to be preferred. Waters that do not freeze to the bottom and which do not dry up are required.	**Not likely to occur.** Suitable habitat is not present in the project area.
Southern Long-toed Salamander (*Ambystoma macrodactylum sigillatum*)	SSC	Inhabits alpine meadows, high mountain ponds and lakes.	**Likely to occur.** Suitable habitat is present.
Western pearlshell (*Margaritifera falcata*)			**Not likely to occur.** Suitable habitat is not present in the project area.
Western white-tailed jackrabbit (Lepus townsendii townsendii)	SSC	Alpine dwarf scrub, Great Basin grassland, Great Basin scrub, pinon and juniper woodland, subalpine coniferous forest.	**Not likely to occur.** Suitable habitat is not present in the project area.
Willow flycatcher (*Empidonax traillii*)	CE FSS	Wet meadow and montane riparian with willow thickets	**Known to occur.** Suitable habitat is present within the project area. There was a detection of an individual near the project area in 2018.
Yellow warbler (*Setophaga petechia*)	SSC	Riparian woodland, montane chaparral, and open conifer forest with substantial shrub	**Known to occur.** Suitable habitat present, known to occur in proximity to project area.

[1] Regulatory Status Codes
SSC: California Department of Fish and Game Species of Special Concern
CE: California Department of Fish and Game Endangered
CT: California Department of Fish and Game Threatened
FE: United States Fish and Wildlife Service Endangered
FSS: United States Forest Service Sensitive
FC: Candidate species for listing by United States Fish and Wildlife Service
IUCN: International Union for Conservation of Nature-LC Least Concern, VU Vulnerable
WL: California Department of Fish and Game Watch List Species
WBWG H: Western Bat Working Group, High priority

Appendix C

Acronyms and Definitions

ADA – Americans with Disability Act

ADI - Area of Direct Impact

ALS - Advanced Life Support

amsl - Above Mean Sea Level

APCD - Air Pollution Control District

APE - Area of Potential Effect

APEFZ - Alquist-Priolo Earthquake Fault Zone

ARB - Air Resources Board

BGEPA - Bald and Golden Eagle Protection Act

BMP – Best Management Practice

CAAQS - California Ambient Air Quality Standards

CalEPA – CA Environmental Protection Agency

CalFire – CA Dept. of Forestry and Fire Protection

California Register – California Register of Historical Resources

CARB – California Air Resources Board

CCR – California Code of Regulations

CDFW – California Department of Fish and Wildlife

CEQA - California Environmental Quality Act

CHP - California Highway Patrol

CNDDB - California Natural Diversity Database

CNPA - California Native Plant Society

CSP - California State Parks

CSQA – California Stormwater Quality Association

CVRWQCB - Central Valley Regional Water Quality Control District

CVSR - Central Valley Spring-run Chinook Salmon

CWA - Clean Water Act

DPS - NMFS Distinct Population Segment

DTSC - Department of Toxic Substances Control

EIR – Environmental Impact Report

FEMA – Federal Emergency Management Agency

FIRM - FEMA publishes Flood Insurance Rate Maps

FP, P - Fully Protected or Protected

GHGs - Greenhouse Gases

HABS – Historic American Buildings Survey

HAER – Historic American Engineering Record

IS/ND - Initial Study/ Negative Declaration

MBTA - Migratory Bird Treaty Act

MCAB - Mountain Counties Air Basin

NAAQS - National Ambient Air Quality Standards

NMFS - National Marine Fisheries Service

NRHP – National Register of Historic Places

OHWM - Ordinary High Water Mark

$PM_{2.5}$ – Fine Particulate Matter

PM_{10} – Suspended Particulate Matter

PCAPCD - Placer County Air Pollution Control District

POST - Peace Officer Standards and Training

PRC – Public Resources Code

PSR - Project Specific Requirements

RWQCBs - Regional Water Quality Control Boards

SHPO – State Historic Preservation Officer

SPR – Standard Project Requirements

SPRP - Spill Prevention and Response Plan

SR - State Route

SRA - State Responsibility Areas

SSC - Species of Special Concern

SWRCB - The State Water Resource Control Board

TRPA – Tahoe Regional Planning Agency

TBAP – Tahoe Basin Area Plan

USACE - U.S. Army Corps of Engineers

USFS – U.S. Forest Service

USEPA - U.S. Environmental Protection Agency

USFWS - U.S. Fish and Wildlife Service

USGS – U.S. Geological Survey

VRPs - Visibility Reducing Particle

Appendix D

List of Tables

Table 1 - Quantities

Quantities for construction materials and disturbance areas are estimated in Table 1. Quantities may change slightly depending on field conditions encountered during construction.

Item	Quantity	Units	Notes
Disturbance Area	17,100	SF	Total area of grading limit shown on drawings
Staging Area	2,500	SF	Utilize existing disturbed area
Access Route	340	LF	Assume 10' width temporary road
Cut	860	CY	Berm removal + meadow restoration area
Fill	50	CY	Berm removal + meadow restoration area
Off-haul	840	CY	Assume 50% off haul due to roots
1/2-tonBboulders	180	EA	For boulder sills and log vane ballast
Logs with Rootwads	6	EA	For log veins
Remove Dam	30	CY	Estimated volume of concrete (included in off-haul)

Table 1: Quantities based on the 50% design drawings. SF=square feet, CY=cubic yards, EA=each, LF=linear feet.

Table 2 - Project Requirements.

ISSUE	PROJECT REQUIREMENT
Aesthetics	
STANDARD PROJECT REQUIREMENT AES-1: **SCENIC VIEWS**	• Do not alter viewscapes to expose structures or undesirable views along scenic highways or scenic viewing locations. • Maximize the use of salvaged mature vegetation to reduce the time of regrowth. • Rehabilitate and remove all construction related impacts to pre-project or better than pre-project conditions.

Air Quality	
STANDARD PROJECT REQUIREMENT AIR-1: **EMISSIONS OF FUGITIVE DUST AND OZONE**	• All construction areas (dirt/gravel roads and surrounding dirt/gravel area) will be watered at least twice daily during dry, dusty conditions while in use by large machinery for project actions. • All trucks hauling soil or other loose materials on public roads will be covered or required to maintain at least two (2) feet of freeboard. • All construction-related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all state and federal requirements. • Potential dust producing actions will be suspended if sustained winds exceed twenty five (25) miles per hour (mph), instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads. • Earth or other material that has been transported onto paved roadways by trucks, construction equipment, erosion, or other project-related activity will be promptly removed. • Idling time shall be minimized to ten (10) minutes for all diesel-powered equipment.
Biological Resources	
SPECIFIC PROJECT REQUIREMENT BIO-1: **CALIFORNIA SPOTTED OWL AND NORTHERN GOSHAWK**	• Prior to project activities within habitat identified as suitable for nesting for the California spotted owl or northern goshawk, a CSP-approved biologist will conduct protocol level surveys to ensure no reproductively active California spotted owls or northern goshawks are present. • If an active nest is detected, project activities will not be conducted within a quarter (0.25) miles of California spotted owl nests or within five hundred (500) feet of northern goshawk nests during the breeding season (February 15 through August 15), or until the young fledge, as determined by a CSP-approved biologist. If a CSP-approved biologist determines nests have failed, project work may commence within buffer zones prior to August 15.
STANDARD PROJECT REQUIREMENT BIO-2: BATS, OTHER NESTING RAPTORS, AND NESTING SONGBIRDS/MIGRATORY BIRDS	• A CSP-approved biologist will evaluate trees for use by cavity dwelling birds and bats. If determined to be actively used for reproductive activity, removal will only occur if the tree is identified as a hazard tree by a qualified arborist or CSP-approved biologist. Tree removal will not occur during the breeding season. • Project activities will not deliberately result in failure of sensitive nesting songbirds, including olive-sided flycatcher and yellow warbler. Prior to activities occurring in spring or summer, a CSP-approved biologist will conduct surveys. Active sensitive songbird nests will be protected by a two hundred and fifty (250) foot buffer from the project boundary. Any proposed project activities within this buffer area will be authorized and/or

	monitored by CSP-approved biologist to avoid project related nest failure. • Active nests of forest birds not otherwise classified as sensitive but protected by the Migratory Bird Treaty Act will be protected with a one hundred (100) foot buffer area from the project boundary and any project activities within this buffer area will be authorized and/or monitored by a CSP-approved biologist to avoid project related nest failure. • Raptors not specifically addressed in other Project Requirements will be protected by a quarter (0.25) mile active nest buffer from April 1 to August 15, or until young fledge, as determined by a CSP-approved biologist. Any proposed project activities within this buffer area must receive prior authorization from a CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-3: SIERRA NEVADA MOUNTAIN BEAVER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for Sierra Nevada Mountain Beaver (SNMB) in suitable habitat within and adjacent to the project area. If occupied SNMB habitat is located then a CSP Environmental Scientist or CSP-approved biologist will conduct a training session for all construction personnel involved with the project. At a minimum, the training will include a description of SNMB and its' habitat and the measures that will be implemented to protect this species. • All noise related construction and ground disturbing activities within 25 feet of occupied habitat, as determined by the CSP-approved biologist, will occur between August 1 and January 31 to avoid the SNMB breeding season. • All vehicles and equipment will avoid SNMB habitat, as delineated by the CSP-approved biologist.
SPECIFIC PROJECT REQUIREMENT BIO-4: SOUTHERN LONG-TOED SALAMANDER	• Prior to the start of construction, a CSP-approved biologist will conduct a survey for southern long-toed salamander within the project area. Salamanders located within the project area will be relocated to nearby suitable habitat by the CSP-approved biologist.
STANDARD PROJECT REQUIREMENT BIO-5: SPECIAL STATUS PLANT SPECIES	• Surveys for special status plant species with a potential to occur in the project area will be conducted by a CSP-approved botanist during the appropriate blooming periods or when identity can be confirmed. All occurrences of special status plant species within the project areas will be recorded on project maps, flagged or otherwise identified on the ground. Where possible, occurrences of all special status plants will be avoided and protected from construction activities. Those locations where special status plants can't be avoided will be subject to the following conditions: • Perennial Species: Prior to construction plants will be carefully excavated and transplanted nearby in suitable habitat. All transplant work will be conducted under the direction of a CSP-approved botanist. Transplanting will occur during the dormant growing season (i.e. late fall)

	when the plants are least disturbed and when they can be watered by winter precipitation. • Annual Species: Seeds from annual special status plant species will be collected during the appropriate season and properly stored prior to ground disturbing activities. Seeds will be sown during the appropriate season in suitable locations identified by a CSP-approved botanist.
SPECIFIC PROJECT REQUIREMENT BIO-6: FISH	• Prior to project activities within the active channel, fish will be excluded from the area through the use of standard methods such as seining and/or electrofishing. Standard depletion methods will be utilized to ensure maximum fish removal is attained. • Handling of fish will be minimized. • Fish will be immediately relocated to the active channel outside of the project area; they will not be retained in holding tanks for any period of time.
STANDARD PROJECT REQUIREMENT BIO-7: INVASIVE PLANTS	• All equipment, and tools used for project activities will be cleaned free of plant parts and soil in order to prevent the introduction and spread of invasive plants to uncontaminated areas. • A CSP-approved biologist will survey project locations prior to construction activities to ensure the area does not support invasive species that could be spread by project activities. • Project areas will be surveyed by a CSP-approved biologist in the first growing season, after project activities are completed, to ensure that no weeds were introduced during project activities. • Any inadvertent weed introductions or expansions will be treated for removal. • Any imported new fill, such as gravel or soil, shall be from a certified-weed free source where feasible.
Cultural Resources	
STANDARD PROJECT REQUIREMENT CULT-1: **ARCHEOLOGICAL MONITORING**	• At the discretion of the project archaeologist a State Park qualified archaeologist will monitor ground-disturbing activities for this project. Particularly the work along the access route and berm removal area, north of Burton Creek, will be monitored. The archaeologist will have the authority to stop construction work in the area of find and evaluate it and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5
STANDARD PROJECT REQUIREMENT CULT-2: **UNDOCUMENTED CULTURAL RESOURCES**	• In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find will stop until State Park qualified cultural resource specialist has evaluated the find and implemented appropriate treatment measures to avoid have a significant impact to historical resources per PRC 15064.5

STANDARD PROJECT REQUIREMENT CULT-3: **HUMAN REMAINS OR BURIAL ARTIFACTS**	• In the event that human remains were discovered, work would cease immediately in the area of the find and the project manager/site supervisor would notify the appropriate CSP personnel. Any human remains and/or funerary objects would be left in place or returned to the point of discovery and covered with soil. The CSP Sector Superintendent (or authorized representative) would notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative). • If the coroner determines the remains represent Native American interment, the NAHC in Sacramento to identify the most likely descendants and appropriate disposition of the remains. Work would not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects would be cleaned, photographed, analyzed, or removed from the site prior to determination • If it is determined the find indicates a sacred or religious site, the site would be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives would also occur as necessary to define additional site mitigation or future restrictions.
SPECIFIC PROJECT REQUIREMENT CULT-4: **VEHICLES, HEAVY EQUIPMENT, STAGING AND STORAGE AREAS**	• Vehicles or heavy equipment are not allowed within cultural resources exclusion zones. • Prior to construction, a CSP cultural resource specialist will review and approve all locations used for staging/storage of vehicles, equipment, and/or materials used during the project. • No staging or storage will be allowed within cultural resources exclusion zones.
SPECIFIC PROJECT REQUIREMENT CULT-5: **HAND CLEARING**	• Manual removal will take place first in areas of identified resources and work outward to fully identify and protect any newly documented and/or extended resources. A CSP cultural resource specialist will determine the extent of the hand clearing only zone.
GEOLOGY AND SOILS	
SPECIFIC PROJECT REQUIREMENT **GEO-1:** **REMEDIATION OF DISTURBED AREAS**	• All excavated areas for floodplain creation, haul roads, and landing/staging areas will be revegetated or treated to recover to pre-construction conditions or better as outlined in the project plans or SWPPP. • Excavated slopes will be graded to a stable angle and protected against erosion by track walking, and seeding/mulching bare areas.

	• Where feasible access routes will be limited to previously disturbed areas. • Recontour and/or outslope main routes of travel if necessary to allow sheet flow of water across the landscape and reduce channelization. • All base erosion control measures must be in place, functional, and approved in an initial inspection prior to commencement of construction activities. • Disturbed areas are to be seeded, planted, and mulched per the revegetation plan. • All protective devices to be installed shall be in place at the end of each work day when the five-day rain probability exceeds forty percent (40%).
HAZARDOUS AND HAZARDOUS MATERIALS	
STANDARD PROJECT REQUIREMENT HAZMAT-1: **SPILL PREVENTION AND RESPONSE**	• Prior to the start of construction, all equipment will be cleaned before entering the project site. During the project, equipment will be cleaned and repaired (other than emergency repairs) outside the project site boundaries. All contaminated spill residue, or other hazardous compounds will be contained and disposed of outside the boundaries of the site at a lawfully permitted or authorized destination. • Prior to the start of construction, all equipment will be inspected for leaks and regularly inspected thereafter until removed from the project site. • Prior to the start of construction, a Spill Prevention and Response Plan (SPRP) will be prepared to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. This plan will include but not be limited to the following: • A map that delineates construction staging areas, and where refueling, lubrication, and maintenance of equipment will occur. • A list of items required in an on-site spill kit that will be maintained throughout the life of the project. • Procedures for the proper storage, use, and disposal of any solvents or other chemicals used during the project. • Identification of lawfully permitted or authorized disposal destinations.
STANDARD PROJECT REQUIREMENT HAZMAT-2: WILDFIRE AVOIDANCE AND RESPONSE	• A Fire Safety Plan will be developed by a CSP-approved forester, prior to the start of construction. • Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment. • Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked on roads or staging areas to reduce the chance of fire.
Hydrology and Water Quality	

STANDARD PROJECT REQUIREMENT HYDRO-1: **EROSION AND SEDIMENT CONTROL AND POLLUTION PREVENTION**	• Best Management Practices (BMPs) to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during any ground disturbing activities as approved by the Regional Water Quality Control Board. • The CSP Contractor will install long-term erosion control measures for any areas where ground disturbing activities result in bare soil areas. The soil will be properly decompacted and mulched or revegetated with appropriate native grass seed, sterile grass seed, and/or native duff with the final selection made by a CSP-qualified representative.
SPECIFIC PROJECT REQUIREMENT Hydro-2: **PERMIT AND SITE PLAN ADHERENCE AND IMPLEMENTATION**	• Limit disturbance area to the necessary extent as outlined in the engineered project plans. • Design, install, and maintain temporary BMPs for the protection of disturbed areas that may be subjected to erosion or surface run-off with the potential to release sediment, nutrients, or hazardous materials to surface or ground water sources. • Implement a dewatering plan for construction activities that are within the low water or bankfull channel. • Use designated and established staging, refueling, and maintenance areas for equipment that has the required BMPs to prevent the potential for contamination of surface or ground water sources. • Any stockpiled material shall have appropriate BMPs according to the permitting requirements to ensure that wind and water erosion potential is eliminated. • Contractor shall be familiar with the conditions of all required project permits and shall implement all required BMP's prior to commencing grading operations.
Noise	
STANDARD PROJECT REQUIREMENT NOISE-1: NOISE EXPOSURE	• Project related activities will generally be limited to the daylight hours, Monday through Friday. However, weekend work will be implemented to accelerate construction or address emergency or unforeseen circumstances. If weekend work is necessary, no work will occur before 8:00 a.m. or after 6:00 p.m. • Internal combustion engines used for any purpose in the project areas will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for project related activities will utilize the best available noise control techniques (e.g., engine enclosures, acoustically attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary. • Stationary noise sources and staging areas will be located as far from visitors as possible. If they must be located near visitors, stationary noise sources will be muffled to the extent feasible, and/or where practicable, enclosed within temporary sheds.
Traffic	

STANDARD PROJECT REQUIREMENT TRAFFIC-1: TRAFFIC CONTROL PLAN	• Prior to commencing construction, the Contractor shall prepare a traffic control plan that includes the following components: Exclusionary fencing will be placed along the project limits, as necessary, to exclude non-construction personnel from the construction area. • Speed limits shall be set for heavy equipment traveling to and from the project site by the State's Representative. • Pedestrian access adjacent trails will be clearly delineated and signed.

Table 3 – Criteria Pollutants

Pollutant	*State Designation*	*National Designation*
Ozone	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Attainment	Unclassified/Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	N/A
Visibility Reducing Particles	Unclassified	N/A

CARB – 2018 Area Designation State and National and 2017 PCAPCD Significance Thresholds for Criteria Pollutants

Table 4 - TRPA threshold standards

Indicator Category	Adopted TRPA Threshold Standard (TRPA Resolution 82-11)	TRPA Indicator	Unit of Measure
Carbon Monoxide	For 8-hour carbon monoxide, maintain concentrations at or below 6 parts per million averaged over 8 hours	First and second highest carbon monoxide concentrations measured at Stateline, NV monitoring station	Parts per million (ppm)
Ozone	Maintain ozone concentrations at or below 0.08 parts per million averaged over 1 hour	Highest 1- hour average ozone concentration measured within a year at any monitoring station	Parts per million (ppm)
Visibility	Achieve an extinction coefficient of $125Mm^{-1}$ at least 90 percent of the time as calculated from aerosol	Extinction coefficient and distance of visibility. 3-year	Light extinction

	species concentrations measured at the South Lake Tahoe monitoring site (visual range of 19 miles)	running average of extinction coefficient	(Mm^{-1}) and Miles or Kilometers
PM_{10}	Maintain PM10 at or below annual arithmetic average of 20 $\mu g/m^3$ in the portion of the Region within CA, and maintain PM10 at or below annual arithmetic average of 50 $\mu g/m^3$ in the portion of the region within NV	Annual average PM10 concentrations at any permanent monitoring station ($\mu g/m^3$)	Micrograms per cubic meter ($\mu g/m^3$)
$PM_{2.5}$	Maintain PM2.5 at or below 35 $\mu g/m^3$ measured over a 24-hour period using gravimetric or beta attenuation methods or any equivalent procedure which can be shown to provide equivalent results at or near the level of air quality standard	Number of 24-hr periods exceeding the applicable federal or state standards at any monitoring station	Micrograms per cubic meter ($\mu g/m^3$)
Nitrate deposition	Reduce the transport of nitrates into bin and reduce oxides of nitrogen produced in the basin consistent with the water quality thresholds.	Implementation of management standard into Regional Plan	N/A
Odor	Reduce fumes from diesel engine to extent possible	Policy statement in Regional Plan	N/A

Table 5 - PCAPCD Air Quality Rules and Regulations

RULE NUMBER	***DESCRIPTION***
RULE 202 VISIBLE EMISSIONS	A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air containment for a period or periods aggregating more than three days in any one hour.
RULE 205 NUISANCES	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such person or the public, or which cause to have a natural tendency to cause injury or damage to business or property.
RULE 214 TRANSFER OF GASOLINE INTO VEHICLE FUEL TANK	The provisions of this rule apply to the transfer of gasoline from any stationary storage tank into any motor vehicle fuel tank.
RULE 228 FUGITIVE DUST	To reduce the amount of particulate matter entrained in the ambient air, or discharged into the ambient air, as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
RULE 242 STATIONARY INTERNAL COMBUSTION ENGINES	To limit the emission of nitrogen oxides and carbon monoxide from stationary internal combustion engines.

Source: PCAPCD CEQA Handbook, 2017 https://www.placer.ca.gov/1801/CEQA-Handbook

Table 6 – Estimated Construction Emissions (lbs./day) and PCAPCD Significance Threshold

PROJECT PHASES	ROG LBS./DAY	NO_X LBS./DAY	PM_{10} LBS./DAY	$PM_{2.5}$LBS./Day
DEMOLITION	2.2678	21.0589	1.3339	1.1240
SITE PREPARATION	1.7165	18.3987	6.7236	3.7369
GRADING	1.4364	15.1376	5.7017	3.1832
CONSTRUCTION	2.2588	15.6757	1.0742	0.8473
PAVING	0.9808	8.5363	0.6371	0.4782
DAILY TOTAL	8.6603	63.1315	15.4705	9.3696
PCAPCD SIGNIFICANCE	82	82	82	N/A
EXCEED SIGNIFICANCE	No	No	No	N/A

Table 7 - Peak Flow Estimates by Regional Regression Equations

Recurrence Interval	Estimated Peak Flow
years	*cfs*
2	102
5	206
10	307
25	447
50	604
100	746

Appendix E

Burton Creek Dam Evaluation for the California Register of Historic Places

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