

**FINAL Sierra Nevada Conservancy Report**

**Sierra Nevada Conservancy Grant Program  
Safe Drinking Water, Water Quality and Supply, Flood Control  
River and Coastal Protection Act of 2008 (Proposition 84)**

**Grantee Name:** California Department of Parks and Recreation (State Parks)

**Project title:** Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys in Coldstream Canyon – Donner Memorial State Park

**SNC Reference Number:** SNC 421

**Submittal Date:** 2.28.14

**Report Preparer:** Tamara Sasaki

**Phone #:** 530-581-4315

**Check one:**

6-Month Progress Report  
 Final Report

6-Month Progress Reports should reflect the previous six months. Final Reports should reflect the entire grant period.

**A. Progress Report Summary:** (Please provide a general description of work completed during this reporting period.)

State Parks has completed the project deliverables of wildlife, vegetation, and archaeological surveys and provided four progress reports. These natural and cultural resources surveys provide a baseline of information necessary for future resources projects to complete project level CEQA documentation.

**Wildlife**

Broadcast surveys were completed during 2012 and 2013 in the project area to determine presence or absence of northern goshawk (*Accipiter gentilis*) and California spotted owl (*Strix occidentalis occidentalis*). The survey area included a buffer of habitat around the project area to determine potential presence in adjacent forest stands.

Visual surveys to determine presence of the mountain beaver (*Aplodontia rufa*) were completed in October 2013.

Bald eagle nesting surveys were completed to determine if there was active nesting within a 0.5 mile buffer of the proposed project areas.

Willow flycatcher and sensitive song bird surveys were completed within the lower reaches of the canyon.

See Appendices 1-4 for information on mountain beaver, mountain (pine) marten, photo of amphibian habitat in Coldstream, and overall wildlife survey map of Coldstream Canyon of Donner Memorial State Park.

### **Vegetation**

Sensitive and non-native invasive plants and sensitive plant habitats surveys were completed throughout the project area and a summary report was completed. See Appendix 5.

### **Archaeology**

Archaeological field surveys were conducted within the entirety of the project area and report completed. Appendix 6 contains a partial copy of the Coldstream Cultural Inventory report. A partial report is provided because sensitive archaeological information with regard to location, character or ownership of historic resources has been omitted. This sensitive archaeological information is exempt from Freedom of Information Act pursuant to 16 U.S.C. 470w-3 (National Historic Preservation Act) and 16 U.S.C. § 470hh (Archaeological Resource Protection Act) and California State Government Code Section 6254.10.

### **B. Deliverables or Outcomes completed during this Reporting Period or**

**Milestones Achieved:** (Include specific information, such as public meetings held, agency participation, partnerships developed, or acres mapped, treated or restored.)

### **Wildlife**

State Parks completed the wildlife deliverables for this project:

- *Deliverable 1: Completed Year 1 and Year 2 of northern goshawk and California Spotted owl protocol surveys*

State Parks documented the presence of a northern goshawk during each survey of the project area. An auditory detection was heard during 2012 and 2013, but there were no visual detections or nests found. There was evidence of active raptor use, confirmed by white wash and a plucking post, near the detection location. We will be following up these detections with focused dawn surveys to determine nesting activity in 2014 with other funding.

No California spotted owls were detected in the project area.

- *Deliverable 2: Year 1 summary natural resources report that fulfills pre-CEQA documentation requirements*

State Parks was able to survey for other sensitive wildlife species that may be present that needed to be considered for CEQA documentation. These sensitive species include American marten, amphibians, yellow warbler, and bald eagle surveys.

#### **Other Sensitive Wildlife Surveys**

Camera stations were deployed to determine presence of American marten or pine marten (*Martes americana*) in November 2013. A pine marten was detected on two occasions during remote camera surveys; one during late morning and one (possibly the same individual) just after sunset. The detections were in a forest management treatment area that was treated by hand-crew in 2008 and pile burned in 2011 within 120 meters of an untreated area. This detection was on the north side of the ridge that bounds the project area to the north and was not in the targeted forest restoration plots. See Appendix 2.

Nocturnal surveys were conducted to determine reproductive status of amphibians in the project area; including western toad (*Bufo boreas*) and long-toed salamander (*Amphystoma macrodactylum*) after adults were detected in upland habitat during nocturnal California spotted owl surveys. These amphibian species were detected in an old quarry pond that was previously restored by State Parks. This pond is shallow and freezes over in the winter so there were no fish present. Numerous long-toed salamander juveniles were present in the pond, which is likely a very valuable amphibian breeding site for Coldstream Canyon. See Appendix 3, photo 1.

Yellow warblers (*Dendroica petechia*), a California Species of Special Concern, were detected during sensitive song bird surveys in summer 2013 and are likely nesting.

A bald eagle pair was actively nesting within 1 mile but greater than 0.5 miles from the proposed project area.

#### **Vegetation**

Approximately 125 acres were surveyed for rare plants, special plant habitats, and non-native invasive plant species. No rare plants or invasive non-native plants were detected. Three new seep/spring sites were discovered that have potential for rare bryophyte species within Coldstream Canyon but outside the immediate project areas. See Appendix 5.

#### **Archaeology**

A complete cultural resources inventory of the Coldstream Canyon study area was conducted in July and August 2012 to comply with California

Environmental Quality Act (CEQA) and California Public Resources Code 5024, 5024.5 for the consideration of historical resources on state lands. The investigation involved an intensive archaeological field survey of approximately 130 acres. A portion of the study area (about 80 acres) had received reconnaissance survey in 2008 in preparation of a fuels management project. These areas were resurveyed and records were updated to reflect new information gathered during 2012 fieldwork.

The pedestrian surveys resulted in identifying a total of four historic sites, four prehistoric sites, three prehistoric/historic (multicomponent) sites, three linear features and 23 isolated finds in the Coldstream Canyon study area. Two historic sites and one multicomponent site identified in 2008 were revisited and rerecorded. During summer 2012, four prehistoric sites, two historic sites and two multicomponent sites were newly discovered. Additionally, 11 isolated finds were mapped and described.

A partial report is provided in Appendix 6 because sensitive archaeological information with regard to location, character or ownership of historic resources has been omitted. This sensitive archaeological information is exempt from Freedom of Information Act pursuant to 16 U.S.C. 470w-3 (National Historic Preservation Act) and 16 U.S.C. § 470hh (Archaeological Resource Protection Act) and California State Government Code Section 6254.10.

- *Deliverable 3: Completed Willow flycatcher survey and Mountain beaver visual survey*

Willow flycatcher survey was conducted in June 2013. No willow flycatchers were detected.

Mountain beaver (*Aplodontia rufa*) were detected in the project area as evidence by a den site and fresh foraging sign (See Appendix 1). The detection was not in the proposed forest or watershed restoration areas, but pre-project surveys will be required for future work in Coldstream Canyon in case this species moves into proposed restoration locations. This is the first recording of this species in Donner Memorial State Park.

The data from these surveys met the final CEQA requirements for the Coldstream floodplain restoration project, which has allowed for project implementation.

**C. Challenges or Opportunities Encountered:** (Please describe what has worked and what hasn't; include any solutions you initiated to resolve problems. If your project is not on schedule, please explain why here.)

Please see Description of Project Accomplishments 7. Challenges below.

**D. Unanticipated Successes Achieved:** (Please describe any additional successes beyond completing scheduled tasks or meeting scheduled milestones.)

State Parks was able to survey for other sensitive wildlife species that may be present that needed to be considered for CEQA documentation. These sensitive species include American marten, amphibians, yellow warbler, and bald eagle surveys. See Bullet #2 under B. Deliverables above.

Also, please see Description of Project Accomplishments 2. Wow Factor below.

**E. Compare Actual Costs to Budgeted Costs:** (Please refer to your grant agreement to list your deliverables/budget categories and budgeted costs compared to actual costs incurred during this reporting period in the table below.)

<b>PROJECT BUDGET CATEGORIES</b>	<b>Budgeted SNC Dollars</b>	<b>Actual Dollars</b>
<b>Personnel Expenses</b>	35,760.00	19,951.59
<b>Archaeology Surveys</b>	4,950.00	4,900.00
<b>Survey Equipment</b>	3,500.00	673.49
<b>Travel</b>	3,300.00	0.00
<b>Printing Supplies</b>	500.00	0.00
<b>Performance Measure Reporting</b>	4,680.00	0.00
<b>Administrative Costs</b>	7,126.00	2,462.50
<b>GRAND TOTAL</b>	<b>59,816.00</b>	<b>27,087.58</b>

**Explanation:** (if needed)

We have not spent the full amount of the grant. We had key personnel leave the project and were replaced by State Parks staff paid by District funding instead of grant funding or by seasonal staff paid at lower rate of pay to do the work. See question 7. Challenges.

**F. Do you have information to report on the project-specific Performance Measures for your project?** (If so, please list the Performance Measures below and describe your progress.)

See 11. SNC-approved Performance Measures below.

**G. Were there any other relevant materials produced under the terms of this Agreement that are not a part of the budgeted deliverables? If so, please attach copies.** (Include digital photos, maps, media coverage of project, or other work products.)

All materials produced are included in this Final Report and Appendices.

**H. Next Steps:** (Work anticipated in the next 6 months, including location and timing of any scheduled events related to the project.)

Please see Description of Project Accomplishments 9. Post Grant Plans below.

## **Please Complete this Section for FINAL Report ONLY**

### **Capacity-Building Results and Collaboration and Cooperation with Stakeholders:**

(What partnerships did you initiate or strengthen as a result of this project? How did they affect the project outcome? If applicable, how did this grant increase your organization's capacity? What is your plan to sustain this increase?)

This project contributed to the pre-CEQA surveys and completion of the Coldstream Lower Floodplain Restoration Project. This restoration work was a partnership between California State Parks and the Truckee River Watershed Council, which jointly planned, funded, constructed, and will be monitoring the restoration activities. This partnership has also helped California State Parks with outreach to the local community, acquisition of additional grant funding, and collaboration with local volunteer groups. One activity that California State Parks participated in with local and volunteer groups was the 2013 Truckee River Day and River Fair. Approximately 30 volunteers assisted on the Coldstream Lower Floodplain Restoration Project planting native plants and fencing old cottonwood trees to prevent further beaver damage. This activity was very well received. We hope to continue with this event into the future.

This project helped exhibit State Parks commitment to natural resources to the local community, and to strengthen partnerships that were already in place. In addition to the discussion above, State Parks is collaborating with the Truckee Donner Land Trust on emergency watershed project at the newly acquired Summit Canyon parcel of Donner Memorial State Park on the western end of Donner Lake. State Parks is also working with the Truckee Donner Land Trust and other organizations on the conceptual Donner Rim Trail.

This grant increased our capacity to obtain baseline wildlife, vegetation, and archaeology information for Donner Memorial State Park. We now have seasonal employees with respective surveying experiences that we can now have conduct follow-up surveys funding and time permitting or survey other park property areas if needed. While we will not be able to sustain the ability to complete such a comprehensive of survey into the future in the same project area, this baseline information will allow us to focus future species specific survey effort on targeted forest stands and riparian reaches. We will also have a baseline of information for future comparison after completion of restoration actions to determine benefits to wildlife and botanical resources.

### **Description of Project Accomplishments:**

#### **1. Most Significant Accomplishment**

Describe in one concise, well-written paragraph, the most significant accomplishment that resulted from this grant.

Not only did we complete surveys needed for CEQA compliance for future restoration projects in Coldstream Canyon within Donner Memorial State Park, but we also set a baseline for future biological monitoring to track potential benefits of our forest management and floodplain restoration actions to sensitive species.

## **2. WOW Factor**

If applicable, please describe anything that happened as a result of the project or during the project that is particularly impressive.

We documented American marten (*Martes americana*) using a fuel reduction treatment area in Donner Memorial State Park. American (or pine) marten are thought of as an interior forest species but our documentation provides evidence that, with proper planning and design, forest plots can be restored with fuel reduction activities and still provide habitat for this sensitive species. This gives us very valuable management information in order to design our forest restoration projects in Coldstream Canyon in similar habitat that will support use by pine marten.

Mountain beaver (*Aplodontia rufa*) was detected in Coldstream Canyon. This is the first recording of this species in Donner Memorial State Park.

We determined that there are no significant invasive, non-native plants within the project boundaries. This is great information and serves as a baseline of conditions prior to watershed and forestry projects.

With this grant funding and funding from other partners, we were able to have a comprehensive archaeological survey of Coldstream Canyon. This allowed us to collect information that puts the archaeological findings in a larger context and tell the more complete story of the past activities on the landscape.

## **3. Design and Implementation**

When considering the design and implementation of this project, what lessons did you learn that might help other grantees implement similar work?

Better on the ground reconnaissance of roads and acoustics during the design and mapping of raptor survey points could have provided efficiencies. These efficiencies were realized after experience conducting our surveys and familiarization with road and trail issues throughout the project area for a year allowed us to modify some of our survey design and still get complete project area coverage. Also, protocol level surveys for sensitive species achieve complete coverage of a project area, but focused stand-specific surveys in the most suitable habitat can also provide valuable information.

**4. Indirect Impact**

Please describe any indirect benefits of the project such as information that has been developed as a result of the project is being used by several other organizations to improve decision-making, or a conservation easement funded by this grant that encouraged other landowners in the area to have conservation easements on their property.

Some of the information collected from this project was communicated to the Town of Truckee by State Parks to avoid impacting Coldstream Canyon from the Stonebridge (Teichert) Planned Mixed Use and Residential Development (PC-1) that is planned for the foot of Coldstream Canyon (adjacent to the eastside of Donner Memorial State Park).

**5. Collaboration and Conflict Resolution**

If you worked in collaboration or cooperation with other organizations or institutions, describe those arrangements and their importance to the project. Also, describe if you encountered conflict in the project and how you dealt with it, or if there was conflict avoided as a result of the project.

State Parks partnered with the Truckee River Watershed Council on floodplain restoration. Data recorded for this project will be used for regional and cooperative efforts to track benefits of this restoration.

Our State Parks Environmental Scientist (botanist) worked with the Tahoe National Forest Truckee Ranger District Botanist to determine what possible rare plant and invasive non-native plant species that should be surveyed for in and around Donner Memorial State Park.

Because of this project, internal conflict has been avoided regarding funding survey requirements for the CEQA documentation for future forestry and watershed work. We now know with some certainty what the natural and cultural resources are present in Coldstream Canyon and this will reduce future costs to projects.

**6. Capacity-Building**

SNC is interested in both the capacity of your organization, as well as local and regional capacity. Please describe the overall health of your organization including areas in need of assistance. SNC is interested in the strength and involvement of your board, significant changes to your staff, size and involvement of membership. In addition, describe how your project improved capabilities of partners, or the larger community.

A commitment to restoration activities such as watershed and forest restoration can stimulate additional work outside the boundaries of our property. This is important because the health of these systems often depends on actions of multiple Agencies and land owners. State Parks

commitment to restoration and sound biological and cultural surveys, made possible through Sierra Nevada Conservancy funding, supports our efforts to protect valuable natural resources and recreation opportunities and conveys this commitment to potential local and regional partners. State Parks has large land holdings and comprehensive natural and cultural resource surveys can be difficult to achieve without outside funding assistance. Our staff is working with local parties on increased recreational opportunities and land acquisition and transfer to increase public access. This project helped us obtain additional grant funding for watershed restoration in Coldstream Canyon, but we are still seeking funding to implement the forest restoration work.

## 7. Challenges

Did the project face internal or external challenges? How were they addressed? Describe each challenge and any actions that you took to address it. Was there something that SNC did or could have done to assist you? Did you have to change any of your key objectives in response to conditions “on the ground”?

The first internal challenge that we faced was turnover in State Parks staff that had key roles in managing and administrating this grant. Lisa Fields, a permanent-intermittent Environmental Scientist and our wildlife biologist, transferred to a permanent position in San Diego. Lisa was responsible for obtaining the grant, survey coordination among the staff, conducting wildlife surveys, tracking the grant budget and expenditures, and preparing the progress and final reports. Much of her time would have been paid by the grant. Also, our Research Analyst (GIS) also left State Parks to pursue his advanced graduate degree. These challenges was address by 1) having full time District paid staff take over the grant administration, reporting, and management by Tamara Sasaki, Sr. Environmental Scientist, and Dan Shaw, Environmental Scientist with a wildlife background step-in and direct the completion of the remaining wildlife surveys; and 2) the ability to sustain a talented seasonal staff employed through this grant funding during multiple years allowed us to continue wildlife and botanical surveys and perform GIS services. Seasonal staff assigned to complete portions of the key objectives gained valuable experience, exhibited initiative, and contributed to continuity and consistency of data collection. This allowed us to produce our deliverables and not alter our key objectives.

The second internal challenge is a forestry project CEQA document using the survey information acquired from the grant. Our Forester was able to begin scoping and planning his forestry projects in Coldstream Canyon but will not be able to provide the CEQA document as a deliverable with this grant. He is currently on leave due to a serious medical illness of an immediate family member.

## 8. Photographs

Grantees are strongly encouraged to submit photos, slides or digital images whenever possible. These images will be used for SNC publications such as annual reports or on the website. Please make sure you clearly identify location, activity, and your project with each submitted image. Images will be credited to the submitting organization, unless specified otherwise.

Photos are included in the Appendices of this Final Report.

## 9. Post Grant Plans

What are the post-grant plans for the project if it does not conclude with the grant? Include a description of the following (if applicable): (1) Changes in operations or scope; (2) Replication or use of findings; (3) Names of other organizations you expect to involve; (4) Plans to support the project financially, and; (5) Communication plans?

We will continue to pursue funding opportunities to implement forest restoration actions. The Forester II or his appointee will prepare a CEQA document for forestry project(s) in Coldstream Canyon. We have a proposal in with the California Conservation Crew to possibly have them be the labor source for a forestry project at Donner. We will conduct focused sensitive wildlife surveys in use-areas documented during this grant project as funding and time allows. The seep/spring sites within and just outside of project boundaries will be protected from any future project impacts. We would like to recruit/entice appropriate botanical experts to conduct focused botanical surveys of this habitat for rare plants, including rare bryophytes. We will implement seasonal and other avoidance measures to address potential impacts from any restoration actions on species present within Coldstream Canyon. We will continue to work with the Truckee River Watershed Council, Truckee Donner Land Trust, and the Tahoe National Forest on public recreation and watershed restoration issues.

## 10. Post Grant Contact

Who can be contacted a few years from now to follow up on the project? Please provide name and contact information.

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7360 West Lake Blvd. (P.O. Box 266)  
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Sierra District

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Denise Jaffke  
Associate Archaeologist  
Sierra District  
7360 West Lake Blvd. (P.O. Box 266)  
Tahoma, CA 96142  
(530) 525-9526

**11. SNC-approved Performance Measures: (Please list each Performance Measure for your Project, as identified in your Grant Agreement, and the results/outcomes.)**

A. Performance Measures for All Categories

1. *Number of People Reached*

The Coldstream Floodplain Restoration project has been completed. In 2013, this project was selected as one of the sites for the Truckee River Day and Fair that is advertised widely in the Truckee and Tahoe region.

Approximately 30 volunteers assisted with planting native plants and fencing old cottonwood trees to prevent further beaver damage on the Coldstream Lower Floodplain Restoration Project. This activity was very well received by the local community. Proposed forestry project has not been funded.

2. *Dollar Value of Resources Leveraged for the Sierra Nevada*

CEQA compliance and project planning for the Coldstream floodplain restoration project has been partially funded by internal DPR stewardship funds in the amount of \$60,000. We have been able to use the Conservancy grant funds to complete CEQA compliance surveys in Coldstream Canyon on both the floodplain restoration project as well as collect the necessary natural and cultural resources to be used for CEQA documentation on future forest management projects on 125 acres total. There has been tremendous benefit to public resources with the use of these funds to allow watershed and forest improvements projects to be implement (watershed) and planned (forest improvement).

3. *Number and Types of Jobs Created*

This project partially employed 6 California State Parks seasonal employees performing field work and reporting (two Senior Park Maintenance Aids, Skilled Laborer, Forestry Aid, and Environmental Scientist) and project management, reporting, and coordinating/implementing field work (2nd Environmental Scientist). Private sector archaeologists were also employed through contract work to conduct the cultural inventory for the project site.

4. *Number of New, Improved, or Preserved Economic Activities*

The grant funding has provided completion of environmental surveys, including wildlife, rare and special vegetation, and cultural/archeological surveys for lower Coldstream Canyon in Donner Memorial State Park. There are now wildlife or raptor surveys on record for Coldstream Canyon. The wildlife survey findings will be valid and useful for up to five years. The cultural survey findings will be valid and useful for 3-5 years, and the botany surveys will be useful and valid indefinitely as baseline information. The completed survey information allowed full CEQA compliance for the floodplain restoration project and the future forest management projects on 125 acres. The surveys will be on file to help further CEQA compliance for future planned

stewardship projects in lower Coldstream Canyon in the Park for decades of management to come.

#### E. Performance Measures for Pre-Project Planning Projects

##### *17. Number of Collaboratively Developed Plans and Assessments*

The Sierra Nevada Conservancy funded State Parks to complete CEQA compliance natural and cultural resource surveys in Coldstream Canyon at Donner Memorial State Park. These surveys were necessary for environmental compliance for planned and future projects in Coldstream Canyon. These planned and future projects work towards an improved and healthier watershed, for water quality, habitat, and fire safety.

An entire watershed assessment was conducted in 2007 by the Truckee River Watershed Council in partnership with CA State Parks and private and federal landowners. Since then, the findings from the assessment have launched many on-the-ground projects for watershed improvements towards water quality, roads and trails maintenance and removal and for improving forest health.

Additionally, State Parks resources staff received funding from SNC in 2007 for implementing impressive forest management and fuels reduction on 87 acres including for mastication, fuels reduction by hand treatment and pile burning and prescribed burning which will take place fall 2010. This previous funding and efforts have greatly improved habitat and forest stand structure on the north side of Coldstream Canyon in Donner Memorial State Park.

The Coldstream floodplain restoration project CEQA and project has been completed. The wildlife, vegetation, and archeological surveys funded by this grant has supplemented and augmented work in Coldstream Canyon even more. The Coldstream floodplain restoration project is already providing water quality improvements and riparian habitat. Future forest projects will provide fire protection and forest health improvement. All the natural resources projects (completed and future) derived from this grant will enhance the visitors' park experience.

##### *18. Percent of Pre-Project and Planning Efforts Resulting in Project Implementation*

The proposed pre-project planning efforts needed, in terms of the specific targeted outcomes from this funding such as resource surveys, will essentially prepare the forest management projects in entirety. The surveys provided the needed natural and cultural information for CEQA compliance for the floodplain restoration project in the lower reaches of the watershed.

The forest management projects will have the necessary natural and cultural resource information ready to go towards completing CEQA compliance

documents for the potential forestry projects on the 55 acre and 70 acre sites, respectively.

*19. Measurable Changes in Knowledge or Behavior*

The Measurable Change in Knowledge of State Parks projects is great. State Parks is one of few public agencies that are actually implementing prescribed-understory burning on forest floors on public lands in the greater Lake Tahoe/Northern Sierra region. Parks staff and resources have seen remarkable habitat improvement on ground that has been burned in 5-10 year cycles in the Lake Tahoe basin. Natural and cultural surveys funded from this grant provide the support needed to complete the environmental clearance to conduct fuels reduction and forest management in preparation for continued fire prescriptions at Coldstream Canyon in Donner Memorial State Park.

The finished product of understory burned forests fits the setting within State Parks lands and the public is witness to this through visiting the Parks. Additionally, the funded surveys allowed the Coldstream floodplain restoration project to be implemented and completed.

## Sierra Nevada Conservancy Grant Program Project Reporting Guidelines

Progress Reports are required periodically throughout the term of the Grant Agreement (Refer to Exhibit B of the Grant Agreement). These reports will allow you and the Sierra Nevada Conservancy (SNC) to see the degree to which the project is on track and achieving your projected outcomes. Your Progress Reports will further provide the SNC with information that will help us to explain your work to the Board Members and various other audiences. Timing of Progress Reports is specified in the Project Schedule included in Exhibit A of the Grant Agreement, but generally every 6 months until completion of the project.

A Progress Reporting Form is provided to Grantees on the SNC Website. **Six-month Progress Reports** should reflect the previous 6-month period; **Final Reports** should address each question for the entire grant period – looking at the project as a whole.

The form specifies the items you will need to report on. For the Six-Month Interim Report these include, but are not limited to: *A Progress Report Summary of work completed, Deliverables or Outcomes Completed, Challenges or Opportunities Encountered, Unanticipated Successes Achieved, Actual Costs compared to Budgeted Costs, Any Additional Relevant Materials Produced, and Next Steps.*

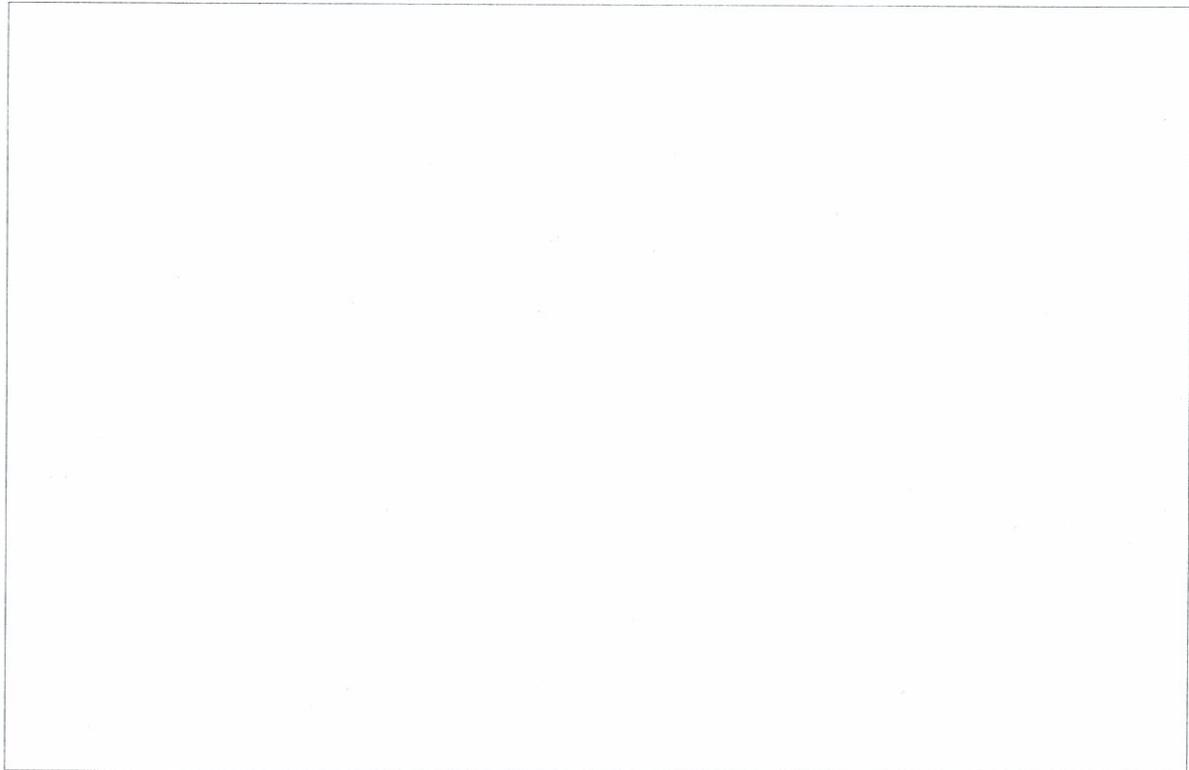
The Final Report will include additional information, such as: *Resources Leveraged, Capacity-Building Results and Collaboration and Cooperation with Stakeholders, a Description of Project Accomplishments, and SNC Approved Performance Measures.*

Please make sure that you submit complete reports by the dates requested in your Grant Agreement.

**Appendix 1. *Aplodontia Rufa* – Donner Memorial State Park, Coldstream Canyon**

Suitable areas of Coldstream Canyon were surveyed for sign of mountain beaver (*Aplodontia rufa*) on October 10, 2013. Most of Coldstream Canyon is flat bottom creek bed or sloping upland habitat dominated by pine with sage or grass understory. There is widespread hardwood understory such as willow, alder, and some cottonwood that would be suitable for mountain beaver. The substrate along much of the creek bed in the willow/alder habitat was very rocky. All areas with this vegetative indicator condition were checked visually with an area search for burrows, grazing sign, and hay piles. There is an aspen stand at the upper reach of the project area just prior to reaching the railroad track oxbow bend which was visually surveyed. This aspen stand is very dry and the understory is sage and lodgepole. The stand is either supplied by water via deep roots that access the water table at creek elevation or via snow melt.

Above the oxbow bend in the railroad tracks, the creek becomes confined, is dominated by willow and alder, and has seeps and sloping banks. This presents more suitable habitat for mountain beaver. Although this area is outside the boundary of the proposed project area, I surveyed this location due to the proximity to the project area, and because it appeared to be the most suitable location on our property in Coldstream Canyon. I found two burrows in the same complex and grazing sign. The site is in willow/alder seep that slopes down to the north side of the creek. The stand is dominated by aspen and conifers, is well shaded, and has an herbaceous/grass understory.





## Appendix 2. Remote Camera Station Results

Remote sensor camera stations were set up in Donner Memorial State Park, near the mouth of Coldstream valley, in conjunction with the SNC grant CEQA compliance surveys. The objective was to determine the presence or absence of sensitive carnivore species in the area. There were two stations set up on Nov 13, 2013. Both stations were baited with chicken thighs (with skin and bone) and left for 18 days. Camera station 1 was on the northern hillside of Shallenberger about 125 meters uphill from the state parks Coldstream access road and about 400 meters from the gate at the state parks road and Coldstream road intersection. The habitat in this area is secondary successional mixed conifer. This area has had some forest management treatments in the past (see Figure 1). Thirty-one acres of this area were thinned and piled in 2008 and the piles were burned in 2011. This station is about 120 meters from untreated forest. There is a good amount of slash on the forest floor in this area and the slash is even denser in the untreated area to the west. Camera station 2 was in a riparian area between the Coldstream ponds and Cold creek. This area is a lodge pole stand with some downed debris and mostly sedge on the floor.

A pine marten was detected at the first camera station on Nov 25, 2013 at around 10am. The photos (see figure 3) show a marten nibbling on the bait through the chicken wire, but it was unable to get all of the bait. Another marten (or the same one) was seen on Nov 29 at around 6 pm taking the rest of the bait. The second station only detected coyotes.

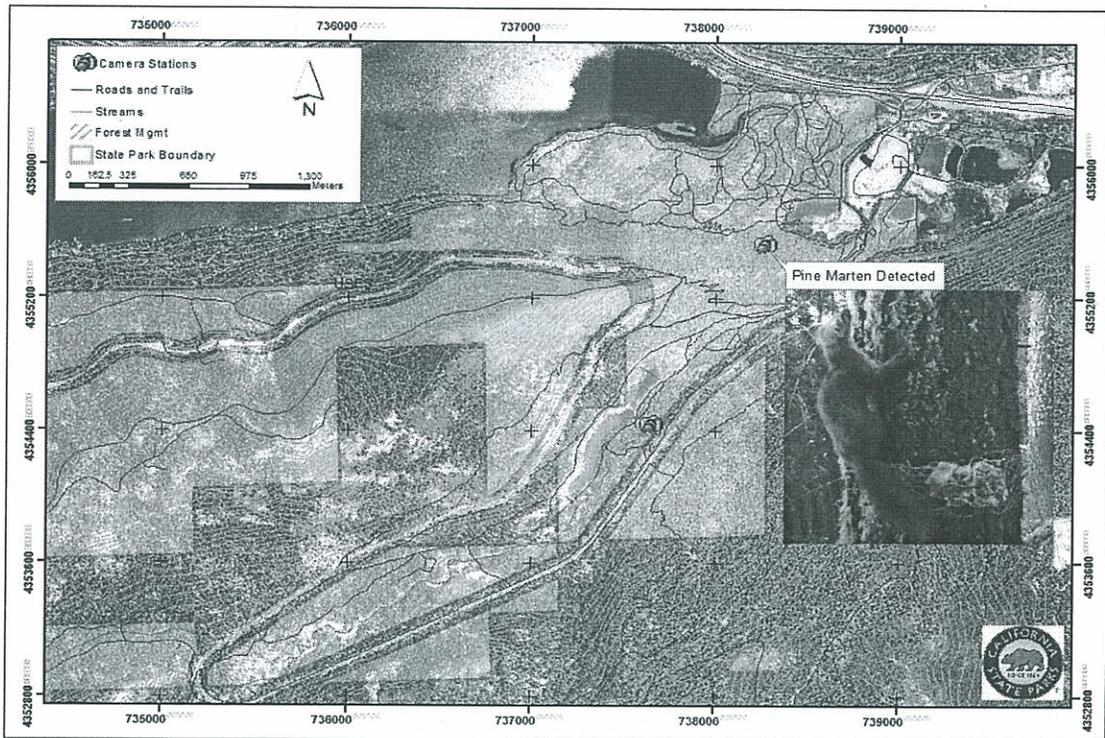


**Figure 1 Photos taken before forest thinning in 2007 (left) and after thinning in 2011 (right)**

Figure 2 Map of survey area

Donner Memorial State Park

2013 Camera Stations



ALewis Dec 2013

X:\Shared\Wildlife\Donner SNC Grant 2010\Marten



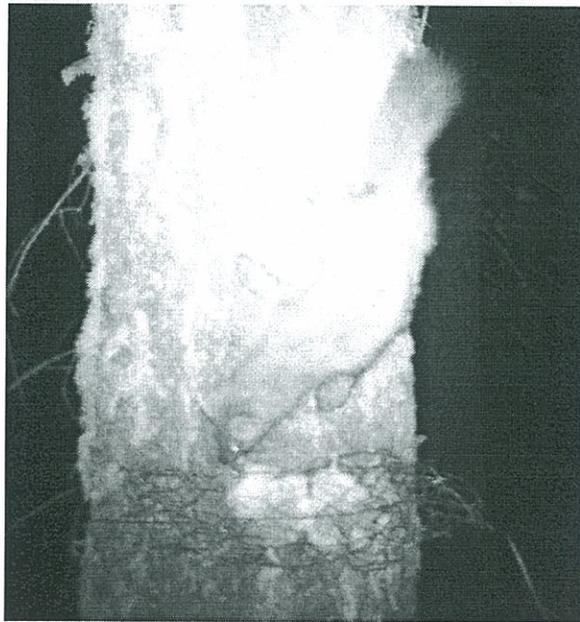


Figure 3 Photos of marten taken with remote sensor camera

**Appendix 3. Photos**

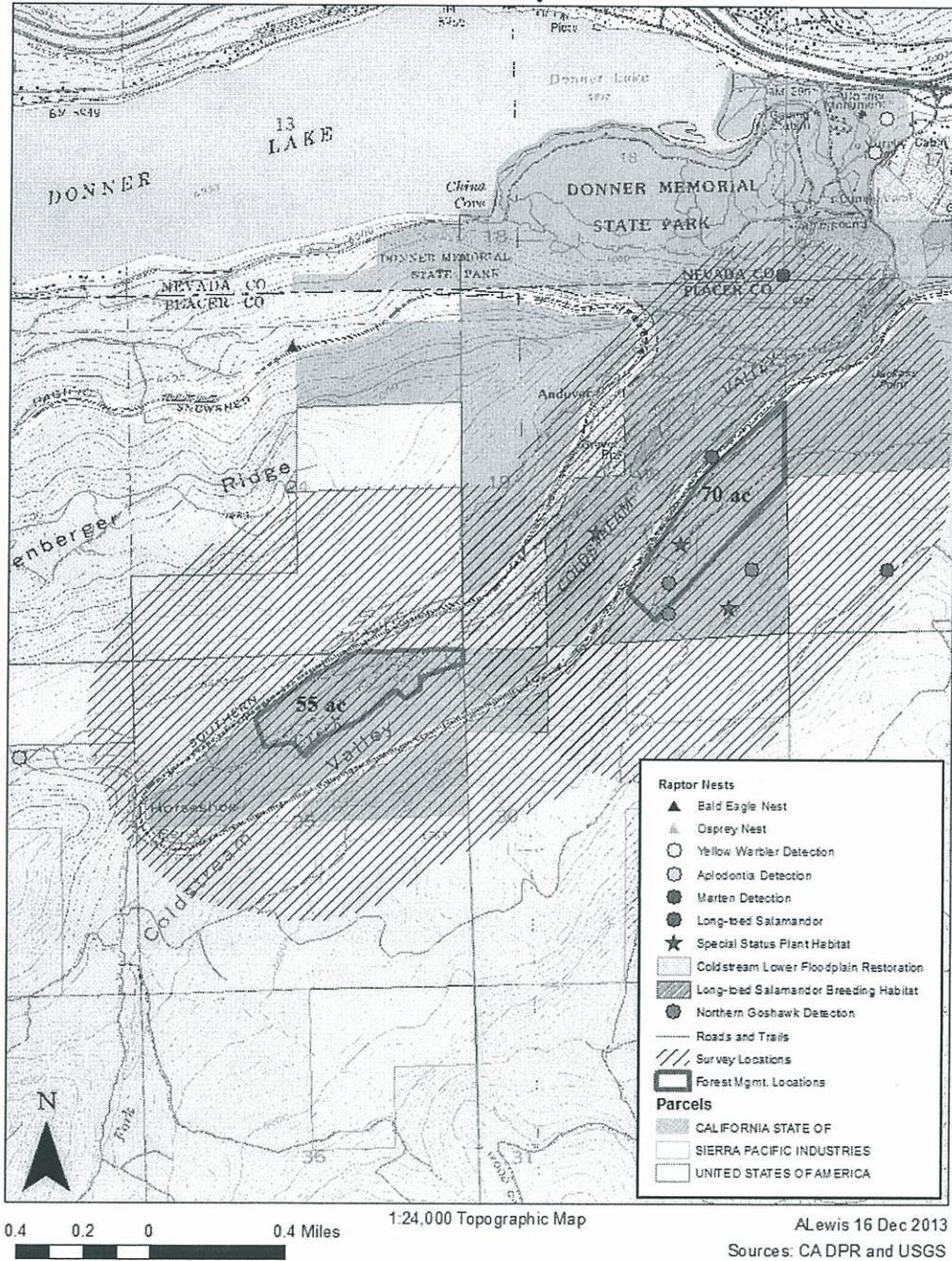


Photo 1. Old quarry pond restored by California State Parks with western toads and a healthy breeding population of long-toed salamanders.

**Appendix 4. Maps**

Map 1: Survey Detections

**Wildlife Survey Results**



0.4 0.2 0 0.4 Miles

1:24,000 Topographic Map

ALewis 16 Dec 2013  
Sources: CADPR and USGS

## Appendix 5:

Donner Memorial State Park – Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys  
Plant Surveys - Sierra Nevada Conservancy Grant – 2012/13 – December 2013

### **Plant Survey – Donner Memorial State Park, Coldstream Canyon Sierra District, CA State Parks “Complying with CEQA for Forest Management” Sierra Nevada Conservancy Grant – December 2013**

#### **I. Project Location Description**

Donner Memorial State Park is located adjacent to Truckee, CA in the Sierra Nevada mountains and is part of the Sierra District of the California Department of Parks and Recreation (CA State Parks). Coldstream Canyon is located within Donner Memorial State Park (Donner MSP) and CA State Parks is currently planning for a fuels reduction project to occur within two distinct units of this area. Sierra Nevada Conservancy funded resource surveys as part of the “Complying with CEQA for Forest Management” grant at Coldstream Canyon for CA State Parks to complete an environmental review before project activities are begun. Within Coldstream Canyon, the fuel reduction units are the “Horseshoe” unit which spans 55 acres and the “Jackass” unit which is 70 acres, for a total of 125 acres (map attached on page 5). Plant surveys occurred in 2012 and 2013 within and surrounding these units and were performed by Sierra District CA State Parks staff botanist Environmental Scientist Dan Lubin and assistant Anna Van Zuuk.

The following report details plant surveys conducted within and directly adjacent to these units which included inventorying special plant habitats, non-native invasive plants, and rare plants. No rare plants were found, nor were any significant invasive non-native plants, but three distinct seep/spring sites were discovered that may contain the potential to harbor rare bryophytes. This report contains a detailed plant list compiled during surveys.

#### **II. Biological Setting**

Within the Coldstream Canyon units surveyed, common Sierra Nevada mixed conifer forests dominate the landscape, while also containing areas of riparian vegetation adjacent to Cold Creek (and Coldstream pond), wet and dry meadows, Aspen stands, shrub-fields, and rock outcrops. The co-dominant tree species found within Coldstream Canyon are: white fir (*Abies concolor*), Jeffrey pine (*Pinus jeffreyi*), incense cedar (*Calocedrus decurrens*), and lodgepole pine (*Pinus contorta* ssp. *murrayana*). Jeffrey pines are the most common with areas of lodgepole pines in more mesic environments. Quaking aspens (*Populus tremuloides*) are found in small numbers on the floor of Coldstream Canyon and are mostly small and appear stunted. Common shrubs found were mahala mat (*Ceanothus prostratus*), tobacco-brush (*Ceanothus velutinus*), green rabbitbrush (*Chrysothamnus viscidiflorus*), antelope bitterbrush (*Purshia tridentata*), and bitter cherry (*Prunus emarginata*).

On the floor of Coldstream Canyon where the “Horseshoe” unit is located, Cold Creek bisects the valley and wet meadows and riparian vegetation are adjacent. Mixed conifer forest with an understory of scattered shrubs and canopy openings of dry meadow are common in both the Horseshoe and Jackass survey units. Some areas of dense conifer growth and heavy fuels were found in both areas.

### III. Survey Methodology

The two units proposed for fuel reduction projects totaling 125 acres were surveyed in 2012. Survey focus was on finding mesic plant communities such as seeps and springs, as well as rocky areas, both of which would have greater potential for rare plants. Surveys were conducted by Daniel Lubin and Anna Van Zuuk from July through September of 2012. Follow up surveys in 2013 were conducted with a focus on re-visiting mesic plant communities, inventorying non-native plants, and checking for new undiscovered plants that might have been un-detected in 2012. A wider area of approximately 250 acres in total ended up being surveyed due to survey routes, and investigation of adjacent and continuous plant communities.

All plant species encountered during surveys were identified onsite or collected for later identification. Plants were keyed out to lowest taxonomic level as time allowed using the "Jepson Manual: higher plants of California" (1<sup>st</sup> edition, 1993). Plants in the same genus as any of the potential sensitive species were keyed to lowest taxonomic level. Plant names do not conform to the new established nomenclature used in the 2<sup>nd</sup> edition of the Jepson Manual due to time constraints.

A list of special interest plant species (attached as Appendix 2) was compiled for Donner MSP from the California Natural Diversity Database (CNDDDB) and included rare and sensitive plant species from the surrounding counties and appropriate habitats. Included habitats were: Upper and Lower montane coniferous forest, Subalpine coniferous forest, Broadleaved upland forest, Chaparral, Cismontane woodland, Bog and fen, Marsh and swamp, Meadow and seep, Wetland, Oldgrowth, Riparian scrub, Riparian woodland, and Great Basin scrub. A list of rare and sensitive plants was also acquired from the U.S. Forest Service Tahoe National Forest that further details what rare and sensitive plant species to survey for (attached as Appendix 1). The Tahoe National Forest lists include bryophytes (mosses) and lichens, which are outside the scope of this plant survey, but all potential habitats for these species such as seeps and streams will be protected from fuel reduction project activities.

The Online CNPS Inventory of Rare and Endangered Plants (8th Edition, California Native Plant Society, 2010) details and defines rare plant "rankings" (California Rare Plant Ranks) which include:

- 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere (rare throughout range with the majority of them endemic to California)
- 2A: Plants Presumed Extirpated in California, But More Common Elsewhere (presumed extirpated because they have not been observed or documented in California for many years)
- 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere (except for being common beyond the boundaries of California, plants with a California Rare Plant Rank of 2B would have been ranked 1B)
- 3: Plants About Which More Information is Needed - A Review List
- 4: Plants of Limited Distribution - A Watch List (limited distribution or infrequent throughout a broader area in California)

Plants listed on the “California Rare Plant Ranks” must be considered in environmental documents pertaining to the California Environmental Quality Act.

Prior to the field surveys, State Parks personnel studied all available CalFlora digital photographs and CNPS Rare and Endangered Online Inventory summaries for each of the special status species. Available plant lists for Donner MSP were compiled and an online plant inventory from CalFlora “What Grows Here” website was studied.

Invasive, non-native plant species information was compiled using data from the California Department of Food and Agriculture’s (CDFA) “Encycloweedia” website and from existing plant records at Donner MSP. Priority was given to seeking out weeds rated as “A” by the CDFA (CDFA weed ratings link) which are directed by the California Food and Agriculture code for “Eradication, containment, rejection, or other holding action at the state-county level. Quarantine interceptions to be rejected or treated at any point in the state.”, or rated as “B” for “Eradication, containment, control or other holding action at the discretion of the commissioner”. The CDFA code directs the state to “prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds” (CDFA code 403). “Noxious weed” is defined as any species of plant that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate, which the director, by regulation, designates to be a noxious weed. In determining whether or not a species shall be designated a noxious weed for the purposes of protecting silviculture or important native plant species, the director shall not make that designation if the designation will be detrimental to agriculture (CDFA code 5004).

#### **IV. Survey Results**

A total of 109 plant species were identified during the survey, which includes 3 non-native plant species (list of plants encountered is attached as Appendix 3).

A total of 3 seeps were discovered in the larger survey area that are ground-water fed plant communities that have the potential to contain rare bryophytes and undiscovered rare plants. Only one of these seeps is located within the proposed fuel-reduction units (“Jackass” unit), while the other two are directly adjacent. All three of these seeps should be protected indefinitely from any ground-disturbance activities. Similar seep-areas within the Sierra Nevada mountains have been classified as “fens”, which by definition (adapted from Fen Conservation and Vegetation Assessment in the National Forests of the Sierra Nevada and Adjacent Mountains, California)

have developed a minimum of 40 centimeters of peat from decomposing plants and bryophytes, and of which have consistent soil saturation throughout the year (wet meadows differ from fens in that they are only saturated with water seasonally).

All three of the seeps found in Coldstream Canyon only have a few centimeters of peat build-up, but still represent a unique plant community and hydrological system since they are consistently saturated with water. Each of these seeps contained a thick ground-layer of bryophytes, and contained plants such as Sierra bog orchid

(*Plantanthera leucostachys*), primrose monkeyflower (*Mimulus primuloides*), seep monkeyflower (*Mimulus guttatus*), Tinker's penny (*Hypericum anagalloides*), and mountain alder (*Alnus incana* ssp. *tenuifolia*).

No Federal or State, CNPS, or US Forest Service listed or sensitive plant species were observed nor was any CDFA "A" or "B"-rated weeds found in the project areas.

The only non-native plants found were intermediate wheatgrass (*Elymus hispidus*), red seeded dandelion (*Taraxacum officinale*), and salsify (*Tragopogon porrifolius*). None of these non-native plants are considered "invasive" and do not pose threats to native plant communities. None of these plants are listed by CDFA and none are listed on the California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory (<http://www.cal-ipc.org/paf/>).

## V. Discussion

Although no rare or sensitive plants were discovered within the Coldstream Canyon survey areas, several rare/sensitive plant species do occur in the vicinity of Donner MSP, mostly on Tahoe National Forest lands. Most of the potential rare/sensitive plants that were surveyed for require habitat near or in mesic environments such as creeks, seeps, bogs, fens, and wetlands. Mesic habitats are usually avoided by project activities at the Sierra District of California State Parks due to their inherent fragile hydrology and the potential to contain rare plants, bryophytes and their importance for wildlife habitat. Part of the purpose of plant surveys preceding project activities is to identify smaller mesic plant communities such as seeps, springs, and wetlands of all types.

An inventory of the bryophytes of the seep areas found should be conducted by a qualified bryologist at some point in the future to discover if any rare species occur at Donner MSP.

Although none of the non-native plants found during the survey constitute any necessary action by the State of California, care should be taken to prevent new infestations of adjacent "weedy" species into these relatively undisturbed plant communities. Several CDFA-listed non-native invasive plants occur at other areas of Donner MSP including tall whitetop (*Lepidium latifolium*), lens-podded hoary cress (*Cardaria chalepensis*), and Russian thistle (*Salsola tragus*). In addition to CDFA-codes, the California State Department of Parks and Recreation Operation Manual, section 0310.7 Exotic Plant Control, CA State Parks is directed to control "damaging exotic plants". If possible, machinery used in the project should be inspected and cleaned so as to prevent new infestations of non-native plants.

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## VII. References

Calflora "What Grows Here" website for Donner Memorial State Park:

<http://www.calflora.org/entry/wgh.html#fmt=photo&inbp=t&y=39.293&x=-120.3&z=12&lpstr=t&lpom=d>

California Department of Food and Agriculture "Encycloweedia" website:

[http://www.cdfa.ca.gov/plant/ipc/encycloweedia/encycloweedia\\_hp.htm](http://www.cdfa.ca.gov/plant/ipc/encycloweedia/encycloweedia_hp.htm)

California Native Plant Society "Rare and Endangered Plant Inventory" website:

<http://www.rareplants.cnps.org/>

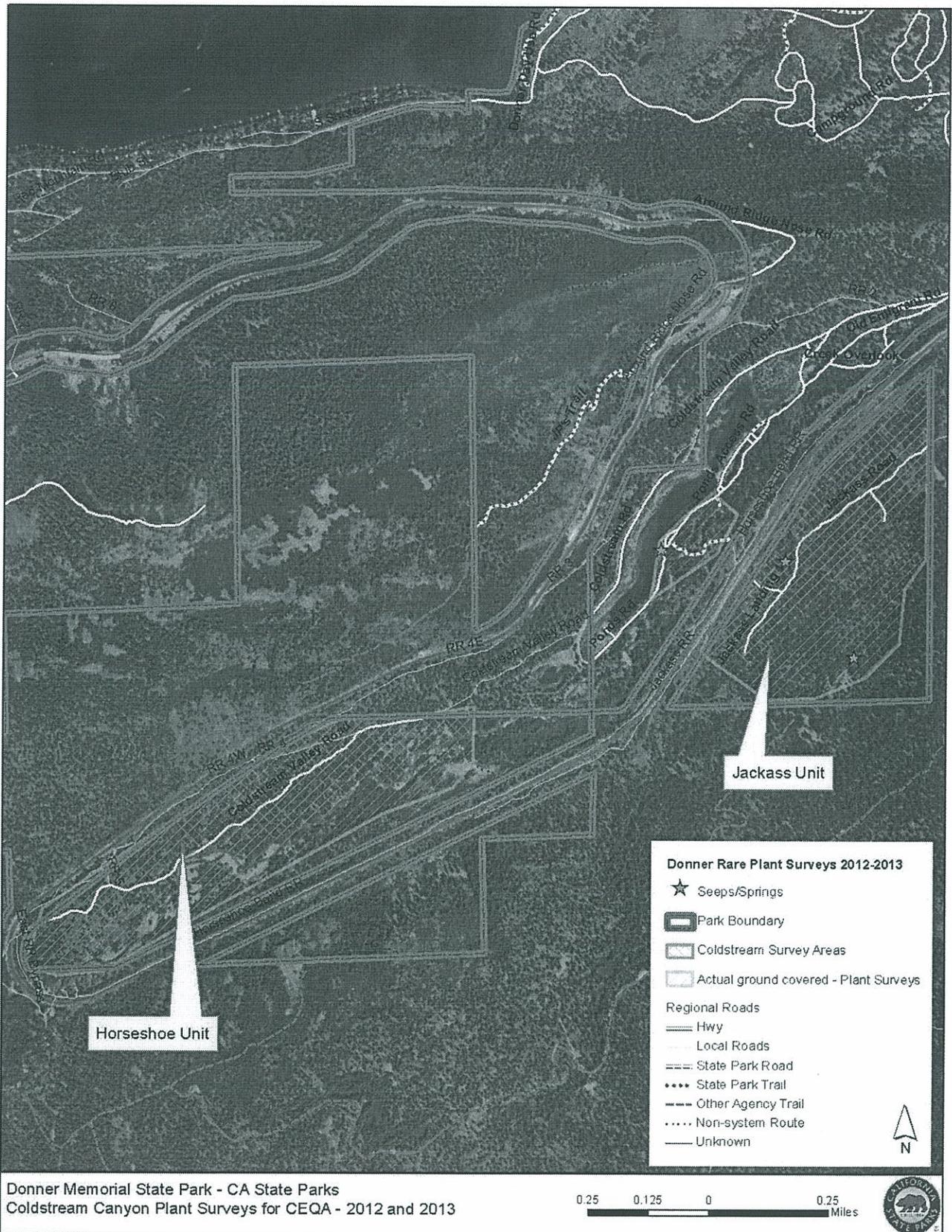
California Native Plant Society "The California Rare Plant Ranking System" website:

<http://www.cnps.org/cnps/rareplants/ranking.php>

California Natural Diversity Database. 2012. RareFind 4. California Department of Fish and Wildlife.

Hickman, J.C., editor. 1993. *The Jepson manual: higher plants of California*. University of California Press, Berkeley.

Sikes, K. G., D. J. Cooper, S. Weis, T. Keeler-Wolf, M. Barbour, D. Ikeda, D. Stout, and J. M. Evens. *Fen Conservation and Vegetation Assessment in the National Forests of the Sierra Nevada and Adjacent Mountains, California*, 2013, California Native Plant Society. Unpublished report to the United States Forest Service, Region 5, Vallejo, CA. Available online at <http://www.cnps.org/cnps/vegetation/pdf/fen-sierra-nev-2013.pdf>



**Appendix 1. 2012 Tahoe National Forest Threatened, Endangered, and Sensitive Plants**

SPECIES	USFWS Status	Global Ranking	State Ranking	CNPS Status	HABITAT
<b>Federally Listed</b>					
<i>Calystegia stebbinsii</i>	Endangered	G1	S1.1	1B.1	Openings in chaparral, cismontane woodland/serpentinite or gabbroic, elevation 600-3,600 feet
<i>Packera layneae</i>	Threatened	G2	S2	1B.2	Openings in chaparral, cismontane woodland/serpentinite or gabbroic, elevation 600-3,600 feet
<b>Forest Service Sensitive</b>					
<i>Astragalus webberi</i>	None	G1	S1.2	1B.2	2,700-4,000 feet, eastside forested
<i>Boechera rigidissima</i> var. <i>demota</i> ( <i>Arabis</i> )	None	G3T2Q	S1.2	1B.2	7,500-8,500 feet, rocky openings
<i>Botrychium ascendens</i> Moonwort	None	G2G3	S1.3	2.3	4,000 ft. +, moist and riparian areas.
<i>Botrychium crenulatum</i> Moonwort	None	G3	S2.2	2.2	4,000 feet +, moist and riparian areas
<i>Botrychium lunaria</i> Moonwort	None	G5	S2.3	2.3	4,000 feet+, moist and riparian areas
<i>Botrychium minganense</i> Moonwort	None	G4	S1.2	2.2	4,000 feet+, moist and riparian areas
<i>Botrychium montanum</i> Moonwort	None	G3	S1.1	2.1	4,000 feet+, moist and riparian areas
<i>Bruchia bolanderi</i> Moss	None	G2	S2.2	2.2	4,000-9,500 feet, moist and riparian areas.
<i>Calochortus clavatus</i> var. <i>avius</i>	None	G4T3	S3.2	1B.2	3,000-5,800 feet, rocky places (Westside)
<i>Clarkia biloba</i> ssp. <i>Brandegeae</i>	SC	G4T3	S3	1B.2	2,500 feet and below, woodlands (Westside)
<i>Cypripedium fasciculatum</i>	None	G4	S4.2	4.2	500-6,000 feet, moist mixed conifer
<i>Cypripedium montanum</i>	None	G4	S3.2	4.2	<7,000 ft, openings in forested areas
<i>Epilobium howellii</i>	None	G4	S4	4.3	6,000-9,000 feet, wet areas
<i>Erigeron miser</i>	None	G2	S2.3	1B.3	About 6,000 feet and above, (granite)
<i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	SC	G5T2	S2.2	1B.2	6,000-8,000 feet, steep unstable soils
<i>Fissidens aphelotaxifolius</i> Moss	None	GU	S1.2	2.2	Sea level to 6,000 feet, wet soil, humus and rocks along narrow streams
<i>Fritillaria eastwoodiae</i>	SC	G3Q	S3.2	3	100-5,000 ft., westside forested areas
<i>Helodium blandowii</i> Moss	None	G5	S1.3	2.3	Fens and wet habitat in meadows
<i>Hydrothyria venosa</i> (Lichen)	None	G3	None	None	1,150 to 7,000 ft in clear, cold water
<i>Ivesia aperta</i> var. <i>aperta</i>	SC	G2T2	S2.2	1B.2	4,500-7,500 feet, eastside meadows/seasonal drainages
<i>Ivesia aperta</i> var. <i>canina</i>	SC	G2T1	S1.1	1B.1	
<i>Ivesia sericoleuca</i>	SC	G2	S2.2	1B.2	

SPECIES	USFWS Status	Global Ranking	State Ranking	CNPS Status	HABITAT
<i>Ivesia webberi</i>	Can	G2	S2.1	1B.1	4,500-6,000 feet Shallow clayey soils
<i>Lewisia cantelovii</i>	SC	G3	S2.2	1B.2	1,300-5,000 feet, westside wet cliffs/outcrops,
<i>Lewisia serrata</i>	SC	G2	S2.2	1B.1	
<i>Lewisia kelloggii</i> ssp. <i>hutchisonii</i>	None	G4T2T3	S2S3*	3.3*	5,100-7,000 feet, sandy granitic soil
<i>Lewisia kelloggii</i> ssp. <i>kelloggii</i>	None	G3*	S3.3*	3.3*	6000 to 11,000 feet, gravelly or sandy flats within mixed conifer forest and subalpine forest.
<i>Lewisia longipetala</i>	SC	G2	S2.2	1B.3	8,300-9,500 feet, damp gravel
<i>Lupinus dalesiae</i>	SC	G3	S3.2	4.2	3,000-8,000 feet, (Westside)
<i>Meesia triquetra</i> Moss	SC	G5	S3S4.2	4.2	Elevation unknown, mosses of wet meadows and fens
<i>Meesia uliginosa</i> Moss	SC	G4	S2.3	2.2	Elevation unknown, mosses of wet meadows and fens
<i>Mielichhoferia elongata</i> Moss	None	G4?	S2.2	2.2	Wet metamorphic rocks with heavy metals like copper
<i>Monardella follettii</i>	None	G1	S2	1B.2	2,000-6,500 feet, serpentine Westside
<i>Penstemon personatus</i>	SC	G2	S2.2	1B.2	4,500-6,500 feet, forested areas Westside
<i>Phacelia stebbinsii</i>	SC	G3	S3.2	1B.2	3,000-6,000 feet, westside openings
<i>Pyrrocoma lucida</i>	None	G2	3.2	1B.2	Below 6,000 feet, eastside meadows/alkali flats
<i>Tauschia howellii</i>	None	G1	S1.3	1B.3	6,000-7,500 feet, ridge tops and slopes on decomposed granite

SC = Species of Concern

Can= Candidate Species

CNPS = California Native Plant Society

\* Likely to change due to new information

**Appendix 2. California Natural Diversity Database search – Placer/Nevada Counties – Mountains**

Scientific Name	Common Name	State Rank	Federal Status	State Status	Rare Plant Rank	Habitat	Notes
<i>Arabis rigidissima</i> var. <i>demota</i>	Galena Creek rockcress	S1.2	None	None	1B.2	Broadleaved upland forest   Upper montane coniferous forest	Target survey species - documented occurrences in Placer and Nevada Counties
<i>Botrychium crenulatum</i>	scalloped moonwort	S2.2	None	None	2.2	Bog and fen   Lower montane coniferous forest   Marsh and swamp   Meadow and seep   Wetland	Target survey species
<i>Botrychium lunaria</i>	common moonwort	S2?	None	None	2.3	Meadow and seep   Subalpine coniferous forest   Upper montane coniferous forest	Target survey species
<i>Botrychium minganense</i>	mingan moonwort	S1.2	None	None	2.2	Lower montane coniferous forest	Target survey species
<i>Botrychium montanum</i>	western goblin	S1.1	None	None	2.1	Lower montane coniferous forest   Oldgrowth	Target survey species
<i>Bruchia bolanderi</i>	Bolander's bruchia	S2	None	None	2.2	Lower montane coniferous forest   Meadow and seep   Upper montane coniferous forest	Target survey species
<i>Carex davyi</i>	Davy's sedge	S2	None	None	1B.3	Subalpine coniferous forest   Upper montane coniferous forest	Target survey species - found in Placer & Nevada counties in wet areas at high elevations, incl. Truckee River Basin
<i>Carex limosa</i>	mud sedge	S3	None	None	2.2	Bog and fen   Freshwater marsh   Lower montane coniferous forest   Marsh and swamp   Meadow and seep   Upper montane coniferous forest   Wetland	Target survey species - found in Nevada county
<i>Claytonia megarhiza</i>	fell-fields claytonia	S2S3	None	None	2.3	Alpine   Alpine boulder and rock field   Subalpine coniferous forest	Target survey species - one occurrence in Nevada county at 2700' on slope of Mt. Lola?; unlikely, but possible
<i>Drosera anglica</i>	English sundew	S2S3	None	None	2.3	Bog and fen   Meadow and seep   Wetland	Target survey species - found in wet areas in Nevada county
<i>Epilobium howellii</i>	subalpine fireweed	S4	None	None	4.3	Meadow and seep   Subalpine coniferous forest   Wetland	Target survey species
<i>Erigeron eatonii</i> var. <i>nevadincola</i>	Nevada daisy	S2.3	None	None	2.3	Great Basin scrub   Lower montane coniferous forest   Pinon and juniper woodlands	Target survey species - one occurrence in Nevada county
<i>Erigeron miser</i>	starved daisy	S2.3	None	None	1B.3	Upper montane coniferous forest	Target survey species
<i>Eriogonum umbellatum</i> var. <i>torreyanum</i>	Donner Pass buckwheat	S2.2	None	None	1B.2	Chaparral   Meadow and seep   Upper montane coniferous forest	Target survey species
<i>Fritillaria eastwoodiae</i>	Butte County fritillary	S3	None	None	3.2	Chaparral   Cismontane woodland   Lower montane coniferous forest   Ultramafic	Target survey species
<i>Glyceria grandis</i>	American manna grass	S1.3 ?	None	None	2.3	Meadow and seep   Wetland	Target survey species - occurrences in Placer county along Truckee river corridor

Donner Memorial State Park – Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys  
 Plant Surveys - Sierra Nevada Conservancy Grant – 2012/13 – December 2013 – APPENDIX 2 CNDDDB Rare Plant List

Scientific Name	Common Name	State Rank	Federal Status	State Status	Rare Plant Rank	Habitat	Notes
<i>Ivesia aperta</i> var. <i>aperta</i>	Sierra Valley ivesia	S2.2	None	None	1B.2	Great Basin scrub   Lower montane coniferous forest   Meadow and seep   Pinon and juniper woodlands	Target survey species
<i>Ivesia aperta</i> var. <i>canina</i>	Dog Valley ivesia	S1	None	None	1B.1	Lower montane coniferous forest   Meadow and seep	Target survey species
<i>Ivesia sericoleuca</i>	Plumas ivesia	S2S3	None	None	1B.2	Great Basin scrub   Lower montane coniferous forest   Meadow and seep   Vernal pool   Wetland	Target survey species
<i>Ivesia webberi</i>	Webber's ivesia	S2.1	Candidate	None	1B.1	Great Basin scrub   Lower montane coniferous forest	Target survey species
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	S2S3	None	None	1B.2	Chaparral   Great Basin scrub   Lower montane coniferous forest   Meadow and seep   Vernal pool   Wetland	Target survey species - one occurrence in Nevada county along Donner Pass road
<i>Lewisia longipetala</i>	long-petaled lewisia	S2.2	None	None	1B.3	Alpine boulder and rock field   Subalpine coniferous forest	Target survey species
<i>Lewisia serrata</i>	saw-toothed lewisia	S2.2	None	None	1B.1	Broadleaved upland forest   Lower montane coniferous forest   Riparian forest	Target survey species
<i>Meesia triquetra</i>	three-ranked hump moss	S4	None	None	4.2	Bog and fen   Meadow and seep   Subalpine coniferous forest   Upper montane coniferous forest   Wetland	Target survey species
<i>Meesia uliginosa</i>	broad-nerved hump moss	S2	None	None	2.2	Bog and fen   Meadow and seep   Upper montane coniferous forest   Wetland	Target survey species
<i>Penstemon personatus</i>	closed-throated beardtongue	S2.2	None	None	1B.2	Chaparral   Lower montane coniferous forest   Upper montane coniferous forest	Target survey species
<i>Phacelia stebbinsii</i>	Stebbins' phacelia	S3	None	None	1B.2	Cismontane woodland   Lower montane coniferous forest   Meadow and seep   Riparian woodland	Target survey species
<i>Pyrrocoma lucida</i>	sticky pyrrocoma	S3	None	None	1B.2	Lower montane coniferous forest   Meadow and seep	Target survey species
<i>Rhamnus alnifolia</i>	alder buckthorn	S2.2	None	None	2.2	Lower montane coniferous forest   Meadow and seep   Riparian scrub   Upper montane coniferous forest   Wetland	Target survey species - numerous occurrences around Donner Lake and in Placer county
<i>Rhynchospora alba</i>	white beaked-rush	S2	None	None	2.2	Bog and fen   Marsh and swamp   Wetland	Target survey species - occurs in Nevada county near Yuba Gap
<i>Sphaeralcea munroana</i>	Munro's desert mallow	S1.2	None	None	2.2	Great Basin scrub	Target survey species - can be found in Placer county?
<i>Viola tomentosa</i>	felt-leaved violet	S3.2	None	None	4.2	Lower montane coniferous forest   Subalpine coniferous forest   Upper montane coniferous forest	Target survey species - numerous occurrences in both Placer and Nevada counties

**Appendix 3. Coldstream Canyon Vascular Plant Inventory 2012-2013**

The following plant list was compiled from field surveys performed in 2012 and 2013 within and immediately adjacent to proposed project areas in the Coldstream Canyon areas at Donner Memorial State Park

GENUS	SPECIES	VARIETY / SUBSPECIES	COMMON NAME	NON- NATIVE?
<i>Abies</i>	<i>concolor</i>		White Fir	
<i>Achillea</i>	<i>millefolium</i>		Yarrow	
<i>Acmispon</i>	<i>nevadensis</i>	<i>var. nevadensis</i>	Sierra Nevada Lotus	
<i>Agoseris</i>	<i>grandiflora</i>		Large Flowered Agoseris	
<i>Allium</i>	<i>campanulatum</i>		Dusky Onion	
<i>Alnus</i>	<i>incana</i>	<i>ssp. tenuifolia</i>	Mountain Alder	
<i>Amelanchier</i>	<i>alnifolia</i>		Service Berry	
<i>Amelanchier</i>	<i>utahensis</i>		Pale Leaved Serviceberry	
<i>Angelica</i>	<i>breweri</i>		Brewer's Angelica	
<i>Antennaria</i>	<i>rosea</i>		Rosy Everlasting	
<i>Apocynum</i>	<i>androsaemifolium</i>		Spreading Dogbane	
<i>Aquilegia</i>	<i>formosa</i>		Western Columbine	
<i>Arabis</i>	<i>holboellii</i>		Holboell's Rock Cress	
<i>Arctostaphylos</i>	<i>nevadensis</i>		Pinemat Manzanita	
<i>Arctostaphylos</i>	<i>patula</i>		Greenleaf Manzanita	
<i>Arnica</i>	<i>cordifolia</i>		Heart Leaved Arnica	
<i>Arnica</i>	<i>mollis</i>		Hairy Arnica	
<i>Artemisia</i>	<i>tridentata</i>		Common Sagebrush	
<i>Aster</i>	<i>integrifolius</i>		Thickstem Aster	
<i>Balsamorhiza</i>	<i>sagittata</i>		Arrow Leaved Balsamroot	
<i>Calocedrus</i>	<i>decurrens</i>		Incense Cedar	
<i>Calochortus</i>	<i>leichtlinii</i>		Leichtlin's Mariposa Lily	
<i>Carex</i>	<i>nebrascensis</i>		Nebraska Sedge	
<i>Carex</i>	<i>sp.</i>		Sedge	
<i>Ceanothus</i>	<i>prostratus</i>		Mahala Mats	
<i>Ceanothus</i>	<i>velutinus</i>		Tobacco Brush, Snowbrush	
<i>Chamerion</i>	<i>angustifolium</i>		Fireweed	
<i>Chimaphila</i>	<i>menziesii</i>		Little Prince's Pine	
<i>Chrysothamnus</i>	<i>viscidiflorus</i>		Green Rabbitbrush	
<i>Cirsium</i>	<i>andersonii</i>		Anderson's Thistle	
<i>Cirsium</i>	<i>scariosum</i>		Elk Thistle	
<i>Collomia</i>	<i>grandiflora</i>		Large Flowered Collomia	
<i>Cornus</i>	<i>sericea</i>	<i>ssp. sericea</i>	Red Osier Dogwood	
<i>Deschampsia</i>	<i>sp.</i>		Hairgrass	
<i>Dicentra</i>	<i>uniflora</i>		Steer's Head	
<i>Elymus</i>	<i>elymoides</i>		Squirrel Tail Grass	
<i>Elymus</i>	<i>glaucus</i>		Blue Wildrye	
<i>Elymus</i>	<i>hispidus</i>		Intermediate Wheatgrass	Y

Donner Memorial State Park – Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys  
 Plant Surveys - Sierra Nevada Conservancy Grant – 2012/13 – December 2013 – APPENDIX 3 Coldstream Canyon Plant List

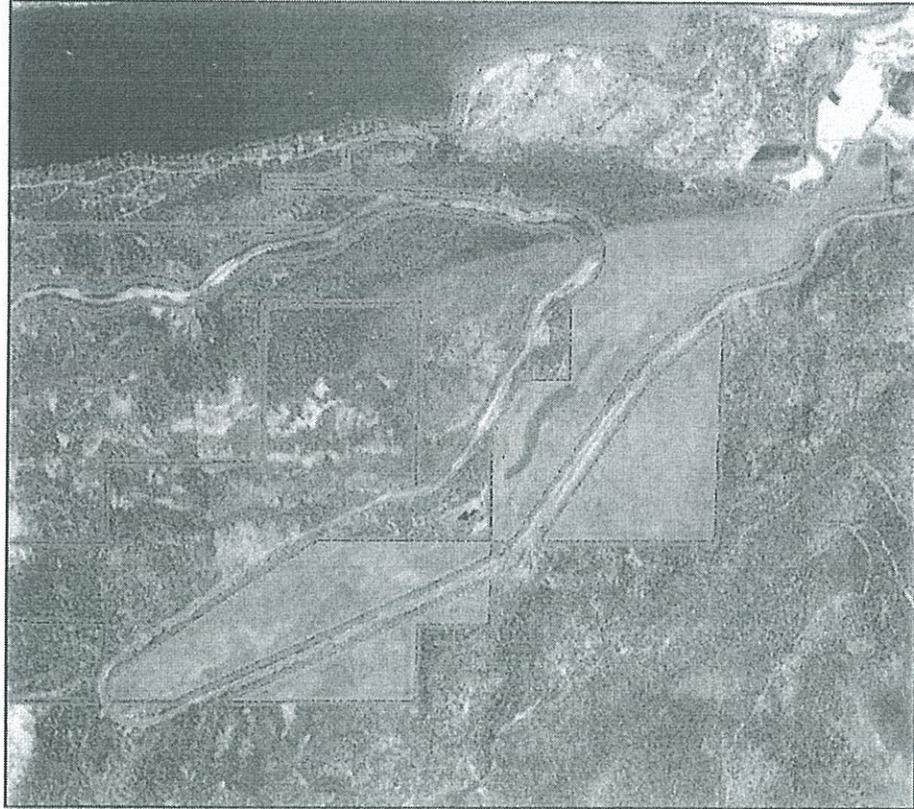
GENUS	SPECIES	VARIETY / SUBSPECIES	COMMON NAME	NON- NATIVE?
<i>Ericameria</i>	<i>suffruticosa</i>		Heath Goldenrod	
<i>Erigeron</i>	<i>sp.</i>		Fleabane/Daisy?	
<i>Eriogonum</i>	<i>nudum</i>		Naked Buckwheat	
<i>Eriogonum</i>	<i>umbellatum</i>		Sulfur Buckwheat	
<i>Fragaria</i>	<i>virginiana</i>		Mountain Strawberry	
<i>Helianthella</i>	<i>californica</i>	<i>var. nevadensis</i>	California Helianthella	
<i>Hieracium</i>	<i>albiflorum</i>		White Flowered Hawkweed	
<i>Hypericum</i>	<i>anagalloides</i>		Tinker's Penny	
<i>Hypericum</i>	<i>formosum</i>	<i>var. scouleri</i>	Scouler's St. John's Wort	
<i>Juncus</i>	<i>balticus</i>		Baltic Rush	
<i>Juncus</i>	<i>sp.</i>		Rush	
<i>Kelloggia</i>	<i>galioides</i>		Kelloggia	
<i>Ligusticum</i>	<i>grayi</i>		Gray's Lovage	
<i>Lilium</i>	<i>parvum</i>		Alpine Lily, Sierra Tiger Lily	
<i>Lonicera</i>	<i>sp.</i>			
<i>Lotus</i>	<i>purshianus</i>		Bird's Foot Trefoil	
<i>Lupinus</i>	<i>polyphyllus</i>	<i>var. burkei</i>	Large Leaved Lupine	
<i>Microseris</i>	<i>nutans</i>		Nodding Microceris	
<i>Mimulus</i>	<i>guttatus</i>		Seep-Spring Monkeyflower	
<i>Mimulus</i>	<i>primuloides</i>		Primrose Monkeyflower	
<i>Mimulus</i>	<i>tilingii</i>		Larger Mountain Monkeyflower	
<i>Monardella</i>	<i>odoratissima</i>		Mountain Monardella	
<i>Navarretia</i>	<i>intertexta</i>	<i>ssp. propinqua</i>	Great Basin Navarretia	
<i>Osmorhiza</i>	<i>berteroi</i>		Sweet Cicely	
<i>Paeonia</i>	<i>brownii</i>		Peony	
<i>Pedicularis</i>	<i>semibarbata</i>		Pine Woods Lousewort	
<i>Penstemon</i>	<i>gracilentus</i>		Slender Beardtongue	
<i>Penstemon</i>	<i>roezlii</i>		Regel's Mountain Penstemon	
<i>Penstemon</i>	<i>rydbergii</i>		Rydberg's Penstemon	
<i>Penstemon</i>	<i>speciosus</i>		Showy Penstemon	
<i>Phacelia</i>	<i>sp.</i>			
<i>Phlox</i>	<i>diffusa</i>		Spreading Phlox	
<i>Pinus</i>	<i>contorta</i>		Lodgepole Pine	
<i>Pinus</i>	<i>jeffreyi</i>		Jeffrey Pine	
<i>Platanthera</i>	<i>leucostachys</i>		Sierra Bog Orchid	
<i>Poa</i>	<i>pratensis</i>		Kentucky Blue Grass	
<i>Polygonum</i>	<i>bistortoides</i>		American Bistort	
<i>Polygonum</i>	<i>minimum</i>		Little Mountain Knotweed	
<i>Populus</i>	<i>tremuloides</i>		Quaking Aspen	
<i>Potentilla</i>	<i>glandulosa</i>		Sticky Cinquefoil	
<i>Potentilla</i>	<i>gracilis</i>		Northwest Cinquefoil	

Donner Memorial State Park – Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys  
 Plant Surveys - Sierra Nevada Conservancy Grant – 2012/13 – December 2013 – APPENDIX 3 Coldstream Canyon Plant List

GENUS	SPECIES	VARIETY / SUBSPECIES	COMMON NAME	NON- NATIVE?
<i>Prunella</i>	<i>vulgaris</i>		Selfheal	
<i>Prunus</i>	<i>emarginata</i>		Bitter Cherry	
<i>Pteridium</i>	<i>aquilinum</i>		Western Bracken Fern	
<i>Pterospora</i>	<i>andromedea</i>		Pinedrops	
<i>Purshia</i>	<i>tridentata</i>		Antelope Bitterbrush	
<i>Pyrola</i>	<i>picta</i>		White Veined Shinleaf	
<i>Ribes</i>	<i>cereum</i>		Wax Currant	
<i>Ribes</i>	<i>roezlii</i>		Sierra Gooseberry	
<i>Rosa</i>	<i>woodsii</i>	<i>var.</i> <i>ultramontana</i>	Wild Rose	
<i>Rubus</i>	<i>parviflorus</i>		Thimbleberry	
<i>Salix</i>	<i>sp.</i>		Willow	
<i>Sambucus</i>	<i>sp.</i>		Elderberry	
<i>Sanguisorba</i>	<i>occidentalis</i>		Western Burnet	
<i>Senecio</i>	<i>integerrimus</i>		Mountain Butterweed	
<i>Senecio</i>	<i>triangularis</i>		Arrow Leaved Ragwort	
<i>Sidalcea</i>	<i>glaucescens</i>		Glaucous Checker Mallow	
<i>Silene</i>	<i>douglasii</i>		Douglas' Champion	
<i>Solidago</i>	<i>canadensis</i>		Canada Goldenrod	
<i>Sphenosciadium</i>	<i>capitellatum</i>		Greyswamp Whiteheads	
<i>Symphoricarpos</i>	<i>sp.</i>		Snowberry	
<i>Taraxacum</i>	<i>officinale</i>		Red Seeded Dandelion	Y
<i>Thalictrum</i>	<i>fendleri</i>		Fendler's Meadow Rue	
<i>Tragopogon</i>	<i>porrifolius</i>		Salsify	Y
<i>Trifolium</i>	<i>hybridum</i>		Alsike Clover	
<i>Trifolium</i>	<i>sp.</i>		Clover	
<i>Valeriana</i>	<i>californica</i>		California Valerian	
<i>Veratrum</i>	<i>californicum</i>	<i>var. californicum</i>	California Corn Lily	
<i>Viola</i>	<i>purpurea</i>		Goosefoot Violet	
<i>Wyethia</i>	<i>mollis</i>		Woolly Mule's Ears	

STATE  
OF  
CALIFORNIA  
Department  
of  
Parks  
and  
Recreation

APPENDIX 6:  
Cultural Resources Inventory Report (partial)  
Coldstream Canyon, Donner Lake Memorial Park  
Placer County, California



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**Keywords:** Donner Memorial State Park, Placer County,  
Coldstream Valley, Cultural Resources, Archaeology

**USGS 7.5' Quadrangles:** Norden and Truckee, CA

Sierra  
District



July 2013

Archaeological and other heritage resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. This document contains sensitive information regarding the nature and location of archaeological sites which should not be disclosed to unauthorized persons.

Information regarding the location, character or ownership of a historic resource is exempt from the Freedom of Information Act pursuant to 16 U.S.C. 470w-3 (National Historic Preservation Act) and 16 U.S.C. § 470hh (Archaeological Resources Protection Act) and California State Government Code, Section 6254.10.

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## SUMMARY OF FINDINGS

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A complete cultural resources inventory of Coldstream Canyon, located in Donner Memorial State Park (DMSP), was conducted during July and August of 2012/2013. The inventory was conducted by California State Parks (Parks) to comply with the park's general plan, as well as requirements of the California Environmental Quality Act (CEQA) and California Public Resources Code for the consideration of historic resources on state lands. The inventory was partially funded through the State of California, Sierra Nevada Conservancy Grant Program, Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 (Proposition 84). The project title is "Complying with CEQA for Forest Management: Natural and Cultural Resource Surveys in Coldstream Canyon—Donner Memorial State Park" (Agreement Number 421).

The project area encompasses approximately 125 acres and is located in Coldstream Valley from the eastern park boundary to "Horseshoe Bend" of DMSP, Placer County, California. Efforts to identify historic properties in the park involved archival research, informant interviews, reviewing historical maps, intensive coverage pedestrian survey. Subsequent fieldwork consisted of relocating and recording the four previously identified archaeological sites (i.e., 2 historic, 2 multicomponent) and recording the newly identified prehistoric and historic resources. The resources identified in 2012 and recorded in 2013 include a total of six sites (i.e., three historic, one prehistoric, and two multicomponent) and 14 isolated finds (e.g., hole-in-cap can, bottle fragment, modified landscape feature). Archaeological data gathered from earlier investigations and confirmed during this investigation suggest that prehistoric use within the park began during Early Archaic times (ca. 7000 B.P.) and continued to historic contact. Ethnographic and historic accounts confirm Washoe presence in the Tahoe-Truckee area into the 20<sup>th</sup> century. The historic themes of transportation and logging are recurrently portrayed by historical archaeological resources in DMSP and Coldstream Canyon in particular.

A small collection of surface artifacts from various sites in Coldstream Canyon has been cataloged and prepared for curation following procedures established at 36 CFR Part 79 and in accordance with policies of the DPR curation facility at the State Archaeological Collections Research Facility in McClellan Air Force Base. The two collections are curated at DMSP under accession numbers P1437 and P1878.

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## INTRODUCTION

This report documents a cultural resources inventory of Coldstream Canyon, located in Donner Memorial State Park (DMSP), El Dorado County (Figure 1), for the Natural and Cultural Resource Surveys in Coldstream Canyon-Donner Memorial State Park. The project was partially funded by the Sierra Nevada Conservancy. The nature of the proposed project requires compliance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) 5024, 5024.5 and Executive Order (EO) W-26-92.

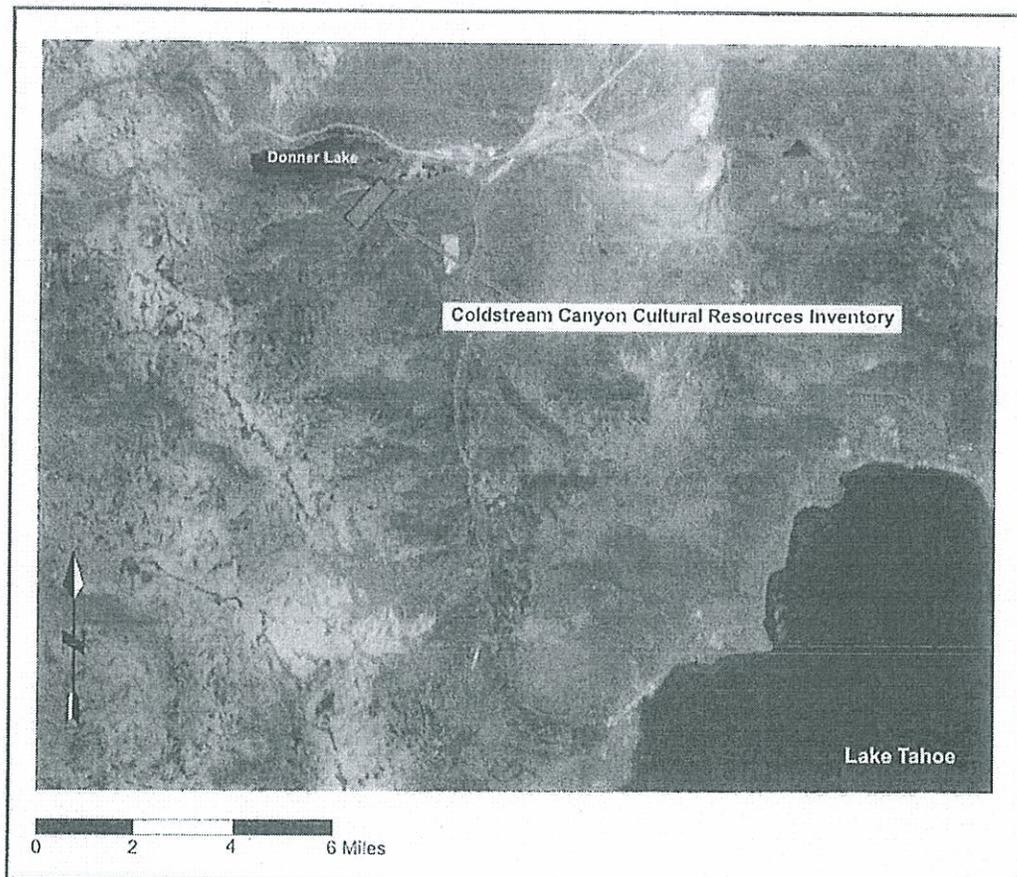
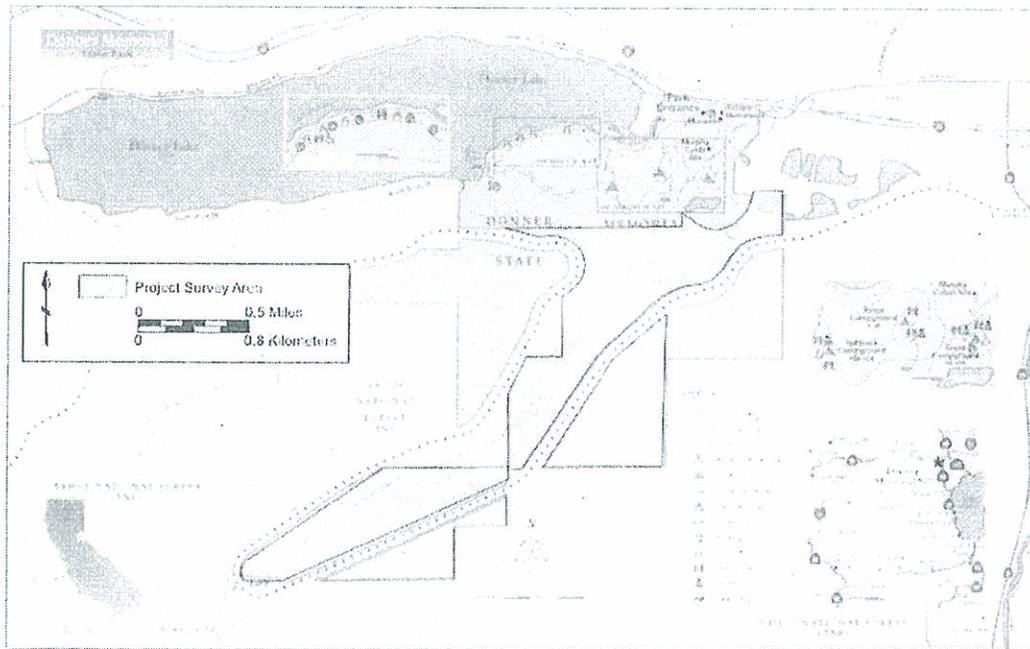


Figure 1. Project vicinity map for the Coldstream Canyon cultural resources inventory.

## PROJECT LOCATION AND DESCRIPTION

The project area, totaling 125 acres, includes portions of Coldstream Canyon managed by California State Parks and includes lands south of Schallenberger Ridge, west of DMSP/Coldstream Access Road junction, and east of Horseshoe Bend. The project falls within sections 24 and 25 of Township 17 North, Range 15 East; sections 17, 19, 20, and 30 of Township 17 North, Range 16 East M.D.B.M (Figure 2). The natural and cultural inventories completed for this project will provide full CEQA compliance for future forest management projects as well as for partial compliance for a proposed floodplain restoration project. The Coldstream Canyon Watershed Assessment was completed in 2007 and both forest management and floodplain restoration were identified as methods to address key management issues. Forest health, fire safety, and watershed restoration projects are critical for effective management of Coldstream Canyon.

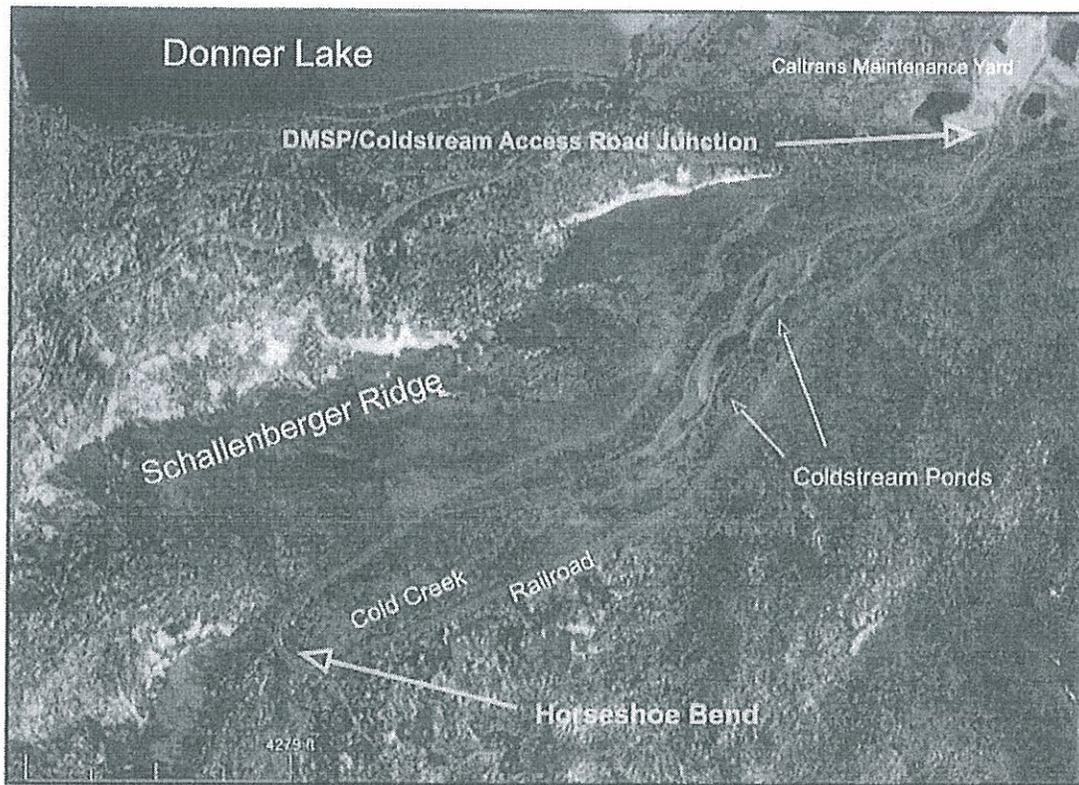


**Figure 2.** Project location map for the Coldstream Canyon cultural resources inventory.

## CULTURAL CONTEXT

### NATURAL SETTING

The project area lies above the annual winter snowline at an elevation of 6100 to 6200 feet above sea level, south of Donner Lake (Figure 3). The lake is a glacial cirque with water surface measuring about 2 ½ miles long, east/west, by ½ mile wide, north/south. Annual levels of precipitation in this portion of the eastern Sierra Nevada range between 80 and 90 inches at the crest to less than 20 inches in nearby Truckee Basin (Markley and Henton 1985:4). Most precipitation at Donner Lake falls as snow between November and April and often accumulates in depths of three to four feet. Donner Lake is fed by spring runoff and drains immediately east at the Donner Creek outlet. In turn, Donner Creek flows two miles east through a glacially U-shaped valley and terminates at a confluence with the Truckee River.



**Figure 3.** Aerial photograph illustrating project context.

The Lake Tahoe-Donner Pass region encompasses the northern part of the Tahoe-Truckee graben, which is comprised of Tertiary and Quaternary andesitic and basaltic lava flows and andesitic volcanoclastic rocks that erupted in four main periods (13-7 Ma, 7-5 Ma, 5-3 Ma, and 4-1 Ma). The Donner Pass region consists of late Paleozoic metasedimentary rocks and Mesozoic metavolcanic rocks intruded by Cretaceous granite, all of which constitute the basement for overlying Tertiary volcanic rocks (Sylvester, Wise, Hastings, and Moyer 2012). Other important geological materials in the vicinity include basalt and vitric tuff. Basalt is most common in the eastern Sierra Nevada and is found in high frequencies near the town of Truckee and Lake Tahoe (Jackson et al. 1994; Skinner et al. 1997).

Paleoenvironmental reconstructions in the Sierra show modern conditions to be similar to periods in the past, but different from others. These fluctuations in climatic conditions vary according to large-scale climatic changes which affect the temperature and precipitation levels in the Sierra. A contributing factor is growth and recession of glaciers through time and their effects on local vegetation. Archaeologists in the region have used paleoenvironmental reconstruction to provide a natural backdrop against which changing prehistoric lifeways can be shown to be adaptive with regard to inferred changes in climate-driven resource structure (Elston et al. 1976; Lindström and Bloomer 1994). Table 1 shows the paleoenvironmental sequence for the region as we understand it today.

**Table 1. Paleoenvironmental Sequence for the Tahoe Sierra**

Years Before Present (BP)	Climatic Regime
500	Cool/moist
700-500	Pronounced drought
1,000-900	Pronounced drought
4,000-1,500	General cool/moist trend with warm/dry intervals; winter-dominant precipitation
7,000-4,000	Warm/dry; shift to summer-dominant precipitation
9,000-7,000	Warm/dry trend
>10,000-9,000	Cold/dry

Lindstrom and Bloomer 1994: Table 1.

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## ETHNOGRAPHY

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Donner Memorial State Park is situated within the ethnographic territory of the Washoe, who inhabited the Truckee area at the time of Euroamerican contact (Carlson 1986; d'Azevedo 1966, 1986; Downs 1966; Price 1962, 1980). The primary habitation focal points were centered around the large valleys on and along the eastern side of the Sierra Nevada mountains, between Honey Lake (north) to Little Antelope Valley (south). The core area was approximately 120 miles long by 40 miles wide and covered about 4,000 square miles. Permanent settlements along the eastern slopes of the Sierra Nevada were identified with traditionally acknowledged subgroups and geographic features. Permanent settlements were also located in small valleys around the 5,500 foot elevation, such as Woodfords and Markleeville in Alpine County, the upper reaches of the Truckee River near Donner Lake, and in eastern Sierra Valley. Much of the territory of the Washoe, including the core area, was fluid in that it was jointly utilized by non-Washoe people, particularly when resources were abundant, or as a trade/travel corridor. Joint use or trespassing was usually accommodated by negotiation (d'Azevedo 1986:467).

The Washoe regularly traveled to the western side of the Sierra Nevada along the prominent rivers. In the vicinity of Truckee, the Washoe traveled across Donner Summit along the North Fork of the American River into the Colfax and Grass Valley areas. Travel corridors also existed along the Middle Fork of the Feather River, the Rubicon River, the Middle and South Forks of the American River, the Mokelumne River, and the Stanislaus River (d'Azevedo 1956, 1986; Freed 1966).

Fishing was a prominent activity in Washoe life. Major fish runs occurred in all of the major rivers and streams along the eastern side of the Sierra Nevada. Fish runs in the streams surrounding Lake Tahoe involved varieties of trout in May and June, Tahoe suckers in late June, Lahontan tui chub later in the summer, and other species. The Truckee River flowing from Lake Tahoe to Pyramid Lake was a prime fishery of the northern Washoe, involving runs of trout from April to June and also from October to December, often lasting through the winter. Early Euroamerican travelers reported "floating houses" along the Truckee River. These were probably covered fishing platforms constructed over streams or on lake margins. Fishing was also possible during winter months via methods such as spearing, netting, or angling through ice-holes. Other fishing methods included: spears, hook and line, nets, traps, weirs, and twined baskets for scooping up minnows and fish eggs. d'Azevedo suggests that fishing provided the most predictable and consistent source of year-round food in the aboriginal and early historic Washoe diet (1986:473).

Plant products provided a substantial part of Washoe diet but were also medicinal in purpose. The irregularity of plant resources and their brief seasonal harvesting time frame in many different locations was the major factor in the dispersal of local populations and frequent movement over a larger range. In years of normal productivity or predictable crop fluctuations, pine nuts (*ta gim*) and acorns (*malin*) constituted staples, particularly in late fall and winter when other plant resources were becoming scarce. Traditionally, each major family unit held harvesting privileges on strips of land from which others were excluded from picking unless permission had been granted (d'Azevedo 1986:474).

The large mammals hunted by the Washoe include mule deer, pronghorn antelope, and mountain sheep. Late summer and early fall were preferred hunting times when the animals were fat. Hares and jackrabbits (white-tailed jackrabbit, cottontail, and snowshoe hare) supplied the most abundant meat source. During the fall in the lowland valleys, the populations of jackrabbits and cottontail were great and rabbit drives were organized to harvest this resource.

For more details on aspects of Washoe ethnography see Barrett (1917, 1963), Carlson (1986), d'Azevedo (1956, 1966, 1986), Downs (1966), Freed (1966), Kroeber (1953), Lowie (1939), Price (1962, 1980), and Siskin (1983).

## ARCHAEOLOGICAL CONTEXT

Heizer and Elsasser (1953) were the first researchers to construct the regional chronology for the north-central Sierra Nevada. Based on mutually exclusive site locations and tool technologies from north Lake Tahoe and Truckee, two cultural complexes were identified. The Martis Complex (ca. 5,000-1,300 B.P.), commonly referred to as the "Middle Archaic," was defined by a heavy reliance on basalt flaked stone scrapers, drills, large dart points, handstones, and millstones, and appeared to reflect an economic focus on hunting and seed-gathering. This complex was first identified at site CA-PLA-5 in Martis Valley, south of Truckee. The later King's Beach Complex (ca. 1,300-150 B.P.), in contrast, was characterized by chert and obsidian toolstone, bedrock mortars, smaller projectile points (presumably arrow points), and an economic emphasis on fishing and seed-gathering. The King's Beach Complex is usually attributed to the late prehistoric Washoe. CA-PLA-9 on the north shore of Lake Tahoe is the type site for the Kings Beach Complex.

The archaeological sequence of the Lake Tahoe area was revised and expanded to reflect research findings by Elston (1970, 1972), Elston and Davis (1972), and Elston et al. (1976). Based on stratified deposits, presence of Great Basin Stemmed series points and radiocarbon dates, the regional chronological framework was amended to include a pre-Martis culture and incorporating a transitional phase between Martis and Kings Beach (Elston et al. 1976). Elston's "Pre-Archaic," which incorporates the Tahoe Reach Phase, broadly places the earliest eastern front prehistory between 10,000 to 8,000 years ago and is generally equated with highly residential mobile, large-game hunting people.

The Early Archaic (8,000-5,000 B.P.), consisting of the Spooner Phase, is described by Elston et al. as "a hypothetical construct to name the interval for which little archaeological data existed, and it remains poorly known to the present" (1994:13). This cultural phase was formally characterized by Pinto (Gatecliff) Split Stem and Humboldt series points found predominantly in the Great Basin, but reliance of this temporal range have recently been questioned (Milliken and Hildebrandt 1997). Paleoenvironmental conditions during this period represent regional warming and drying trends during the Middle Holocene. General cultural patterns attributed to the Early Archaic include small game hunting, increased milling of hard seeds, and mixed-mode, forager-collector subsistence strategy.

The Middle Archaic (ca. 5000-1300 B.P.), represented by the Early (ca. 5000-3000 B.P.) and Late Martis (ca. 3000-1300 B.P.) phases, is portrayed as a shift toward cooler and wetter conditions, similar to the climate experienced today. Human populations increased and diversified, though remained low enough to prevent resource overexploitation (Zeier and Elston 1986:8). Originally, pan-Sierran cultural complex was marked as the "basalt culture" (Heizer and Elsasser 1953). This interpretation was re-evaluated and then considered an east Sierran expression (Elston 1986; Zeier and Elston 1986); however, McGuire and Bloomer (McGuire 1997) have since revived the notion that the "Martis Complex" may represent a broader cultural phenomenon.

Western Great Basin Adaptive Sequence	Years B.P.	Eastern Sierra Front Chronology	Temporally Diagnostic Projectile Points
Late Archaic	700	Late Kings Beach	Desert series
	1300	Early Kings Beach	Rose Spring series
Middle Archaic	3000	Late Martis	Various large basalt dart points (e.g., Martis series, Elko Corner-notched and Elko Beared)
	5000	Early Martis	Various large basalt dart points (e.g., Martis series)
Early Archaic		Spooner	Various large basalt dart points
Pre-Archaic	8000		
	10000	Tance Reach	Great Basin Stemmed series
Fluted Point	11500	Washoe Lake	Fluted

\*Based on Elston 1986; Elston et al. 1994; Elston et al. 1995

Figure 4. Tahoe Sierra Chronological Framework (Shapiro et al. 2003:17).

The Martis Complex remains a mystery to local researchers and debate continues (e.g., Bloomer et al. 1997; Clewlow 1984; Duke 1998; Elsasser and Gornter 1991; Jackson et al. 1994). Current research and discussion is in regards to whether the Martis Complex represents a distinct cultural phenomenon or a unique culture specializing in high Sierran resources, particularly the uncharacteristic reliance on basalt toolstone. Lindström (1985), for instance, speculates that Martis reflects an indigenous Sierran culture rather than representing groups from Great Basin or California incorporating the mountains into their seasonal settlement patterns.

The transition from Middle to Late Archaic/ethnographic Washoe is described as one of "profound cultural change" (Elston 1986:19). Late Archaic is divided into the Early Kings Beach Phase (ca. 1300 -700 B.P.) and Late Kings Beach Phase (ca. 700-150 B.P.) (Elston et al. 1994). Environmental conditions continued to be temperate during the Late Archaic, although periodic episodes of cool-moist and warm-dry intervals existed which resulted in substantial and prolonged droughts (Lindström and Bloomer 1994). Socio-economic and technological changes likely resulted from population increases and "demographic packing" and consequent "interspersed" settlement patterns (Elston 1986). Innovations attributed to the Late Archaic include the bow and arrow, bedrock mortars (i.e., pinyon pine exploitation), and simple flake tools. The inclination towards basalt and other coarse-grained material for tool manufacture decreased while obsidian and chert toolstone increased.

In summary, the current cultural chronology for the Sierra/Lake Tahoe region, based on diagnostic projectile points, recognizes six 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).

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## HISTORY

Historic themes for the Donner Lake Basin were developed by Lindström (1987) and include Emigrant History, Settlement in the East Donner Lake Area, Transportation, Logging, Ice Harvesting, Commercial Fishing, Water Reclamation: Dams, Storage Reservoir, Water Diversion and Communication. The following is taken from Bloomer and Bischoff's (2006) report that summarizes much of Lindström's *Historical Overview of Donner Memorial State Park* (1987).

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## EMIGRATION HISTORY

The first known documentation of Euroamerican exploration of the Donner region is that of John C. Fremont's 1845-46 expedition. On December 3, 1845 his campaign camped at Coldstream, south of present day Donner Memorial State Historic Park. The Fremont documentation and exploration reflects the growing interest in the American far west during this period. The U.S. Government began to document resources, inhabitants, and geography of "uninhabited" regions such as the Donner area.

Prior to these early expeditions, emigrants passed through the area as early as 1841. The Stevens-Murphy-Townsend Party was first to bring wagons through the Donner Pass in 1844. They followed the river over much of the same route as modern day Highway 80. Moses Schallenberger and two other men of the Murphy-Stevens-Townsend Party built a cabin to brave the winter. Members of the famous Donner Party used this cabin in later years. A large monument built in 1918 by C.F. McGlashan allegedly stands on or near this location.

Beginning in 1841, overland emigrant travelers entered California on foot or with wagons, crossing the Sierra Nevada as their last major obstacle of the journey. The route up the Truckee River and out of Nevada, along the northern shore of Donner Lake, up and over Donner Pass, and down into the Central Valley was first opened by the Stevens-Murphy-Townsend Party in 1844. This party, guided by "Old [Caleb] Greenwood," deserves recognition for being the first to use the Donner Pass route and the first to take wagons across the Sierra Nevada. The group split in two. A pack train traveled on to Lake Tahoe, ascended McKinney Creek and descended into the Central Valley by way of the Rubicon and American Rivers. A wagon train traveled westward to Donner Lake where "they camped and spent several days exploring ahead in an effort to find a practical pass" (Stewart 1962:71). They were pressed to leave 6 of their 11 wagons at the east end of Donner Lake, intending to retrieve their cargo early in the spring. Their laborious crossing of Donner Pass was probably completed on November 25, 1844. Three young men were left behind and entrusted to guard the supplies. They hastily constructed a cabin to temporarily reside in until help returned. Two of the three men later decided to cross Donner Pass on foot, leaving young Moses Schallenberger to winter alone at Donner Lake. He fared surprisingly well and was rescued that spring.

Schallenberger's abandoned cabin served as a retreat the following year for the Goster and Breen families, members of the Donner Party. It became a grim landmark for countless other emigrants who followed. It allegedly stood on or near the site of the large monument at DMSP, constructed by C.F. McGlashan in 1918 to commemorate the Donner tragedy. "The story of the Donner Party involves an isolated and tragic incident of American history which has been transformed into a major folk epic. It has consumed the research interest of many social scientists and captured the imagination of the American public for 140 years. This group of emigrants was trapped in the Sierra Nevada mountains of California during the winter of 1846-47. Half of the group perished and some of those that survived did so by "cannibalizing the dead" (Lindström 1987: 1)

During the period 1845-1848 it is estimated that about 2600 individuals traveled from the States to California, with most using the Truckee/Donner Pass gateway (Unruh 1979:119). The route east of Donner Lake, known as 'Greenwood's Cutoff, was developed so as to avoid the Truckee River Canyon. Several members of the Stevens-Murphy-Townsend Party, among them 'Old Greenwood', returned eastward in 1845 and pioneered this new route, which was widely used after 1845. It traveled northeast from the area around DMSP, around the northern end of the Verdi Range and into Dog Valley to rejoin the Truckee River below the rugged canyon area (Jackson 1967:4-5).

By 1846 and thereafter, most emigrants traveled southward from Donner Lake into Coldstream Valley and crossed either Middle Pass, the notch between Mt. Judah and Donner Peak, or South Pass, the notch between Mt. Judah and Mt. Lincoln, or Donner Pass being the North Pass. The GLO [federal General Land Office] surveys of 1865-66 depict the emigrant trail going through the Middle and South Passes. Until 1848 the great overland migration used this route. However, in the summer of 1848, eastbound Mormons laid out the basic Carson Pass route, which then became the principal route into California (Lindström 1987: 5).

The early emigration route into California through the pass west of present-day Truckee is called the Truckee Route of the California Emigrant Trail. Often, it is referred to as the Donner Trail. There was not just passageway on the Truckee Route in the 1840s. In 1846, the Joseph Aram Party, to avoid the steep wall at present-day Donner Pass, discovered another pass in September, between Mount Judah and Mount Lincoln. Since chains and a roller bar had to be used to get the wagons up the last 400 feet, the pass became known as Roller Pass. About two years later, a switchback was constructed, making use of rollers obsolete. Soon after Roller Pass was discovered, another pass closer to Donner Pass was found, and named Middle Pass. These two passes were primarily used until the toll road was constructed over Donner Pass. The road was finished in 1863, and was called the Dutch Flat and Donner Wagon Road (DPR 1991:2).

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#### SETTLEMENT IN THE EAST DONNER LAKE AREA

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The *Dutch Flat Enquirer* reported that by 1864 the lower (east) end of Donner Lake had become "quite a settlement" (10/1/1864 in Lindström 1987:25). This settlement included two hotels, a store, blacksmith shop, express office, and several dwellings. The enterprises at Donner Lake centered on King and Ingram's Station and McPherson's Donner House.

One of the first to permanently settle on the east end of Donner Lake was Samuel King. On May 16, 1860, King filed a Declaration of Intent for 160 acres in the middle of Section 17, T17N, R16E since the area had not been officially surveyed by the United States General Land Office (GLO). Upon the completion of the GLO survey in 1866, King filed an official homestead claim on the property, though he abandoned the claim in 1871. According to Lindstrom, the Donner Lake House appears on the assessor's record at the east end of Donner Lake. This house may refer to King and Ingraham's [a partner?] establishment. In 1870 King was assessed for property on the south side of the Dutch Flat & Donner Lake Wagon Road consisting of a "barn, hotel, horses, colts, and 20 tons of hay, 1 miles east of Donner Lake" (Lindstrom 1987: 25).

In 1871, the year that King abandoned his claim, the Central Pacific Railroad (CPRR) sold 160 acres located in the center of Section 17, T17N, R16E. From the property boundary description, Kelly most likely purchased King's former claim that CPRR received when it was abandoned. In 1873, Kelly bought an additional 240 acres located in Section 17, bringing his total ownership within the vicinity to 400 acres. By 1877, Kelly sold his entire holdings to Joseph Marzen, a butcher in Truckee. According to Lindstrom, Marzen most

likely operated a hog farm and grew alfalfa on the property before he sold all but one acre to the Donner Ice Company in 1895 (Lindstrom 1987: 16-28).

It is interesting to note that in 1864 King purchased a ranch located in 17N R16E, Section 17 from Angus McPherson, the former owner of a sawmill located near the lake's east shore (Lindstrom 1987: 13-25). In addition to a sawmill, Angus McPherson also operated a hotel close to the eastern shore of Donner Lake. According to Lindstrom's report, "McPherson offered row and sail boats for rent" (*Union* 7/11/1864/3:3). Also, a butcher shop, store and blacksmith shop were located adjacent to McPherson's Hotel (ARNC: 20/1864). Bean's *History and Directory of Nevada County* (1867) showed A. McPherson at the Donner Lake Hotel with E.S. Drew as proprietor of the Donner Lake Hotel and E.S. Dewey as butcher at the Donner Lake Hotel (p. 322-23) (Lindstrom 1987: 25). Another article about the McPhersons that appeared in the *Dutch Flat Enquirer* in 1864, reported that the McPherson operation included 2 hotels, a store, blacksmith shop, express office, and several dwellings (*Dutch Flat Enquirer* 10/1/1864 in Lindstrom 1987: 13).

In 1869 the *Truckee Tribune* noted that Grants Hotel complete with bath house and row boat rentals was located at the east end of Donner Lake (*Truckee Tribune* 5/12/1869 in Lindstrom 1987). In 1870 the *Pacific Rural Press* placed the location of the Grant House about a mile from the Donner Party cabins. Lindstrom speculates that Grants Hotel may have been McPherson's old Donner Lake Hotel under a new name. It is likely that the hotel is one of the two mentioned in the 1864 newspaper article.

The Grant Hotel appears to have survived longer than other hotels in the area. Sam Welsch leased it from 1872 until 1877 (*Territorial Enterprise* 7/18/1872 in Lindstrom 1987:28). In 1906, the *Truckee Republican* announced the opening of the Donner Lake House. According to Lindstrom, this article may have been referring to a renamed Grant Hotel (Lindstrom 1987: 28).

The popularity of hotels in the area stemmed from improved transportation. Initially, the Central Pacific Railroad made Donner Lake more assessable and thus encouraged the emergence of small resorts and hotels around Donner Lake. The trend to enjoy the natural environment as a form of recreation became more popular throughout the country in the late 1800s and Donner was a perfect platform for such activities. Horseback riding, fishing, hunting and other lakeside pastimes in the Tahoe region became favorite activities for Northern California's urbanites by the early twentieth century (Lindstrom 1987: 30).

Another boom to tourism came with the advent of the automobile. Between 1910 and 1920, the popularity of the automobile and its affordability increased mobility and accessibility to the mountain regions, especially during the summer, leading to the influx of more summer visitors. To accommodate the increased visitor population, campgrounds opened throughout the region.

In addition to the hotels and campgrounds, logging and ice harvesting operations, other early businesses and residences near Donner Lake's east end emerged. B.I. Meeder operated a blacksmith shop on Donner Lake road at the foot of Donner Lake; Potter and Sawyer operated a meat market on Donner Lake Road, about a mile east of Donner Lake and were

assessed for their market, a stable, four horses, one butcher wagon and one male dog; Billy Yeng owned a house at the foot of the Donner Lake on the Donner Lake Road; J.R. Cross owned a house (that was also used as a saloon) at the east end of Donner Lake and Sisson, Egbert and Company operated a store at the foot of Donner Lake Road and paid property taxes as of 1867. Sisson, Wallace and Company later held title to the N 1/4 of Section 17, T17N, R16E, purchased from CPRR (Lindstrom 1987: 28).

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## TRANSPORTATION

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Early to mid-1840s, the Emigrant Trail ran up Coldstream Valley for about a quarter of a mile before what is today the railroad's Horseshoe Bend. The trail then travels west out of the valley on the northern side following what is aptly named Emigrant Canyon. It crested the Sierra Nevada mountain range between Mt. Lincoln and Mt. Judah.

To facilitate immigrants and gold seekers, road construction between Sacramento and the eastern boundary of the state during the mid-1850s grew rapidly. In 1859, gold and silver were discovered in the Washoe Mountains and travel to this region warranted the construction of new roads through the Sierra Region as requested by the California Surveyor-General.

The first toll roads in the Donner area operated between 1857 and 1859, located along the north shore of Donner Lake and over Donner Pass. This toll road later incorporated the Dutch Flat and Donner Lake Wagon Road located near the proposed alignment of the Central Pacific Railroad. The opening of the Dutch Flat and Donner Wagon Road for traffic in June 1864, led to the establishment of new inns and toll stations along the route. After the completion of the Central Pacific Railroad in June, 1868, this road fell into disrepair.

The Central Pacific Railroad opened in 1868, providing a more rapid and reliable mode of transportation that connected California to the east. The railroad had a tremendous impact on the economy of the area. As a result of the opening of the first transcontinental railroad, various California industries including construction, logging, commercial fishing, the ice industry, agriculture, and recreation increased.

Due to the popularity of the automobile, in 1909 the State legislature appropriated funds for the construction of a state highway over the Donner Pass to the west end of Donner Lake (California Highway and Public Works 3/1990:67). The road would closely follow the Dutch Flat and Donner Wagon Road. This detour was eliminated in 1925 and cars began to go through the Truckee River Canyon. The route, known as the Victory Highway, was primitive and unpaved until 1923. This new road was modified and improved into what is known today as Old Highway 40.

Highway 40, the Lincoln Highway, provided even more access to automobiles filled with visitors and increased economic activity associated with tourism. Stopping places and concessions developed along this highway. As more people crowded into California there was a growing need for highway improvements. A result of these pressures included the

development of the new, trans-Sierran Highway 80, which forced many of these concessions along old highway 40 out of business when tourists bypassed the old highway in favor of the new, upgraded Highway 80.

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## LOGGING

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In 1848, the fledgling timber industry in California sparked the gold rush when James Marshall first found gold in the tailrace of Sutter's Mill. Like many other industries in California, the gold rush led to the rapid expansion of logging and lumber operations. The large increase in population led to a housing shortage and the only remedy was building more hotels, boarding houses, and private residences. The increased construction created a large lumber market. In addition to the increased housing market creating lumber demands, mining operations needed water that was distributed through wooden flumes. A shift from surface placer mining to subterranean hard-rock mining required lumber for timber supports. The housing and mining demands for timber combined with the vast quantities of lumber needed for railroad ties, trestles, and tunnels created an even greater need for lumber.

As a result of the increased demand, logging operations started throughout California's various forested mountain ranges including the Sierra Nevada's Truckee Basin. Between 1875 and 1906 a network of logging railroads was built in the Truckee basin. The lumbering industry found its beginnings at Donner Lake when Angus McPherson established a water-powered sawmill at the east side of the lake in 1864. McPherson also established a hotel here. At its peak, McPherson's operations included two hotels, a store, blacksmith shop, express office and several dwellings (*Dutch Flat Enquirer* 10/1/1864 in Lindstrom 1987:13). By 1867 Angus and John McPherson owned almost all the land at the east end of Donner Lake and the outlet. A year later they had sold to the Donner Lake Saw Mill Company. By 1879 the mill had closed, leaving only a hotel in operation with additional income from the water rights.

In addition to the McPherson operation, as early as 1865, the Towle Brothers also established a double steam plant with four saws at the east end of Donner Lake. Between 1866 and 1880 the mill reportedly operated a double mill steam plant with 100,000 board feet daily capacity, however, this production is questionable when compared to the capacities of larger mills in the region (Lindstrom 1987:16).

According to Lindstrom (1942: 21), "Knowles positioned the Towle sawmill on the north shore of Donner Lake near the CPRR tracks (?). More precisely, the Towle Brothers sawmill was located along Donner Creek about 100 yards west of the Murphy Cabin." In 1984, Lindstrom visited this location and noted what "appears to have been a mill site" (Lindstrom 1987: 16).

In 1869, the Towle Brothers paid taxes on a steam sawmill at the foot of Donner Lake. The sawmill included an engine and boiler, boarding house and outbuildings, one truck [wagon?] and 145,000 board feet of lumber. By 1870, the dam they had placed across

the outlet was obstructing fish runs. Somewhat typical of the times, the Towle Brothers did not formally purchase the land where they had built their mill until 1872. It is possible that they leased the land from the Central Pacific Railroad (CPRR) before eventually purchasing it. Despite this early success, the mill ceased operations by 1874. The only other activity relating to the mill occurred when CPRR ran a side track to the 'Old Towle Mill Site' in 1875 to pick up 10,000 cords of wood which had been stacked for two years. In 1889 the Towle Brothers sold their remaining property (Lindstrom 1987: 16-18).

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### ICE HARVESTING

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Another industry that developed in the Donner vicinity was ice harvesting, due primarily to the completion of the railroad. The railroad used the ice to refrigerate California produce for transportation across the country. In addition to the railroad's consumption, it also served a growing California population and was used in hotels because of its purity. Ice was harvested from artificial ice ponds and from sawmill ponds that were closed in the winter (Lindstrom 1987: 21).

The closing of the mills also provided a ready labor force since during the winter when loggers could not cut timber they often shifted their focus to ice harvesting. From 1868 through the 1920s, ice harvesting proved to be a successful industry in the Truckee area. The first ice company in the Truckee area was established in 1868 at Boca, though there were reported ice ponds in Coldstream Canyon that dated to 1866. Later operations in Coldstream Canyon included the Coldstream Ice Company, established in ca. 1900, and the Champion Ice Co., ca. 1904 (Lindstrom 1987: 21).

While ice companies formed in the area, Donner Lake was not cold enough for consistent ice production so operations were limited to its perimeters and tributaries. Companies that contributed to the Donner Lake ice production, an industry that produced up to 35,000 tons in one year, included the Sitka Ice Company and the Donner Ice Company. In addition to the two companies, a Mr. Grant, the proprietor of the Donner Lake House, located at the foot of Donner Lake, sold ice in 1869. His ice house was used as a bath house in the summer. The Sitka Ice Company was only briefly mentioned in 1874 in reference to their building at the east end of Donner Lake that was used as a datum point for taking depth soundings in the lake (Lindstrom 1987:21, citing Lord 1981, Wiley 1984, MacAulay 1984, and others).

In 1895, the Donner Ice Company of Chicago, Illinois, purchased land within the future Donner Memorial State Park, in Section 17, T17N, R16E. At the turn of the nineteenth century, the Donner Ice Company was an active ice producer on Donner Creek. The company's pond was in the S 1/2 of the NE 1/4 of Section 17, below the junction of Coldstream and Donner Creek outlets, being fed primarily by the Donner outlet. It drained into Donner Creek at its lower end in the SW 1/4 of Section 16. Competition from artificial ice gradually forced the closure of the Truckee Basin ice ponds. By 1927, when the industry completely faded, more than 26 companies had harvested ice from the region (Lindstrom 1987: 22).

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### COMMERCIAL FISHING

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The Donner Lake region fishing industry expanded after the completion of the CPRR and commercial fishing expanded as early as 1871. "Meschery (1978:48) reports that two fish hatcheries (Kelly and Stewart) existed in 1871 near Donner Lake, breeding over 1/2 million trout; both were abandoned within 10 years. The State Fish Commissioners along the Donner and Independence lakes ordered conservation efforts in 1878, 1879 and 1880, stocking these bodies of water with eastern trout, salmon and whitefish" (Lindstrom 1987:22).

In 1889 another fish hatchery is thought to have operated at the east side of Donner Lake. According to records of land transfer to W.H. Kruger in 1889, the area in Section 18, T17N, R16E contained another fish hatchery in addition to those owned by Kelly and Stewart. Kruger's hatchery operations included the fish hatchery, saloon, dwelling, barn corral, wharf, the rights to six springs, reservoir tanks, water pipe, hose, eight boats, glasses and bottles (Lindstrom 1987: 23).

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### WATER RECLAMATION: DAMS, STORAGE RESERVOIR, WATER DIVERSION

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Donner Lake also played an important role as a potential water supply and storage reservoir. By the mid-1860s, Nevada Senator Newlands lobbied for the damming of Donner Lake in order to irrigate arid desert lands in western Nevada. According to Lindstrom, "the GLO survey plat of 1865 shows, perhaps incorrectly, the Donner Lake outlet as a straight channel leading into Donner Creek. The field notes for the survey state it as being one chain (66 feet) wide. More correctly, another map shows the outlet as a slough that bends northward and makes an ox-bow turn to the southeast and then straightens out" (Lindstrom 1987: 23). Newlands planned to straighten this slough and oxbow alignment, dredge it so that it formed a deeper channel and dam it.

Newlands' initial plan was to construct two dams for water reclamation. By 1889 he had purchased lakeside properties at the outlet and downstream properties that included the area of the excavated canal from the outlet. After his purchase, workers constructed the first dam near the lake's outlet. When workers had completed construction of a canal that lowered the natural level of the lake by four feet, the wooden dam, built by the Truckee Lumber Company, allowed the lake to be raised by 12 feet. In the 1920s a concrete dam replaced the old, inadequate wooden structure. There is no evidence that Newlands' planned second dam was ever constructed (Lindstrom 1987: 24).

Water rights have changed hands many times over the years. Newlands sold his operation to the Donner Lake Company for \$10.00 in gold coin. Between 1924 and 1942 the Donner Lake Company transferred partial water rights to both the Sierra Pacific Power Company (SPPCO) and the Truckee Carson Irrigation District (TCID). In 1943 the Donner Lake Company transferred additional water rights to both SPPCO and TCID. In 1970, SPPCO transferred partial water rights to the Truckee Donner Public Utilities District (Lindstrom 1987: 24).

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COMMUNICATION

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The Donner Lake region's remote location necessitated communication with more populated areas. As the settlement in the area expanded and technology changed, Donner Lake's communications with the rest of the state improved. By 1865 the California State Telegraph Company built a telegraph line at the east end of the Lake. This line ran communication from Sacramento to Virginia City and Austin Nevada with a telegraph office located at Donner Lake. In addition to the telegraph line, Donner Lake had a post office that closed in 1868 when it was moved to Truckee (Lindstrom 1987: 29).

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## CULTURAL RESOURCE IDENTIFICATION EFFORTS

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A comprehensive cultural resources identification effort was conducted for Coldstream Canyon, Donner Memorial State Park in 2012 and included archaeological pedestrian surveys and archival research.

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### ARCHIVAL RESEARCH

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Literature research to identify historic themes for the Coldstream Canyon project area involved the following: review of literature on previously conducted archaeological research; documents on file with DPR Sierra District; records on file with the North Central Information Center (NCIC) of the California Historical Resources File Center (CHRIS); local histories; secondary sources; and historic topographic and early survey maps. Archival research was conducted prior to pedestrian surveys and included examining cultural resources reports and archaeological site records on file at DPR Sierra District Cultural Resources Office, Sugar Pine Point State Park in Tahoma. A records search for previous cultural resource surveys and previously recorded archaeological sites and features within Donner Memorial State Park (DMSP) and ¼-mile radius was conducted through North Central Information Center (NCIC) of CHRIS in 2012. The results of the records search provided baseline information regarding previous archaeological investigations in and immediately adjacent to DMSP and Coldstream, specifically.

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### PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

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Numerous archaeological investigations have been conducted in the region, but the most relevant research for our project area is information obtained from site CA-NEV-13/H, a very large, complex multicomponent site that is located near the park entrance, about 0.4 miles north of the current project location. CA-NEV-13/H has a long and varied history of archaeological investigations beginning in 1952 and continuing through to present. The prehistoric artifacts representing Early Archaic, Middle Archaic and Late Archaic occupations from over 5,000 years ago to historic contact have been noted throughout CA-NEV-13/H. The prehistoric component is characterized by an abundance of basalt debitage and numerous bifacial tools. Obsidian, chert, quartzite and metavolcanic debitage are present in lesser quantities. Milling equipment such as portable milling slabs and bedrock milling stations with mortars (BRM) and/or slicks have gone largely undiscovered. One BRM with at least three deep mortars is on display near the entrance of the Emigrant Trail Museum. Test investigations conducted by Furlong Archaeological Consulting (Bloomer and Jaffke 2009) across Locus G uncovered two milling stations with mortars and slicks indicating others may exist in the area.

The historic component of CA-NEV-13/H includes the Murphy Cabin site, the Pioneer Monument, blacksmith shop remains, telegraph features, Donner Dam and bridge, several trash dumps and numerous artifacts (Gilbert et al. 2001; Schwaderer et al. 1987; Schwaderer 1988). Most are well documented remains of a rich history beginning during

the winter of 1846-47 with the ill-fated Donner Party and continuing into the mid-20<sup>th</sup> Century.

Several sites have been identified in the Donner Lake vicinity (e.g., Table 2). Archaeological investigations at two prehistoric sites (CA-NEV-199 and CA-NEV-9) on Donner Creek east of CA-NEV-13/H were conducted from 1977 to 1983. CA-NEV-199 was located on a small rise above the north bank of Donner Creek, about one mile east of Donner Lake. A large portion of the site was probably removed during the 1960s construction of Hwy 80 (Rondeau 1982). Test excavations were conducted in 1977 on a remnant of the site north of the highway in conjunction with the expansion of the California Agricultural Inspection Station (Keesling and Johnson 1978). Additional data recovery excavations were conducted in 1980 to mitigate construction impacts (Rondeau 1982). Results of both the test and data recovery investigations uncovered an artifact rich deposit from 50cm to over 100cm deep, suggesting probably seasonal and long-term site habitation. The artifact assemblage is predominantly basalt with lesser frequencies of obsidian and chert toolstone. Projectile points, bifaces and debitage are abundant in the collection, representing a predominance of basalt biface reduction in tool manufacture and maintenance. A large number of well-made scrapers were also recovered. The groundstone collection includes both handstones and millings slabs. Chronologically diagnostic projectile points and obsidian hydration data indicate initial occupations before ca. 7000 B.P. with primary occupations from ca. 5000 to ca. 1300 B.P., continuing to probably ca. 700 years before Euroamerican contact.

**Table 2. Significant Archaeological Sites in Donner Lake Vicinity**

Site Designation	Type	Reference	Distance from Project Area
CA-NEV-199	Prehistoric Village Site	Keesling and Johnson 1978  Rondeau 1982	1 mile east
CA-NEV-9	Prehistoric Seasonal Camp	Lindström 1983	1.3 miles east
CA-NEV-529	Prehistoric Habitation Site	Lindström 1990	2.7 miles west/northwest
CA-NEV-530/H	Multicomponent,	Lindström 1990	2.7 miles west/northwest

CA-NEV-9 was located on the south side of Donner Creek in a developing commercial zone along Hwy. 89, approximately half-a-mile from the confluence of Donner Creek with the Truckee River. Test excavations were conducted in 1983 on a remnant portion of relatively undisturbed site area in conjunction with the construction of a McDonald's Restaurant (Lindstrom 1983). The collected artifact assemblage, like that from CA-NEV-199, is composed primarily of basalt bifacial tools and debitage. Unlike CA-NEV-199, the CA-NEV-9 artifact quantities are low and there are no groundstone tools. The maximum depth of the archaeological deposit was 80cm below surface. Although short term

habitation may have occurred here, the predominance of basalt bifaces and debitage with a lack of groundstone suggests basalt bifacial tool manufacture was the primary activity. Chronological data derived from four large Martis Comer-notched and Martis Contracting Stem projectile points indicates primary occupations from ca. 5000 to ca. 1300 B.P.

Investigations of two other prehistoric sites (CA-NEV-529 and CA-NEV-530/H) at the west end of the lake were conducted in 1988 and 1989. CA-NEV-529 and -530/H are relatively small sites on the north side of Summit Creek, approximately one-quarter-mile west of Donner Lake. Test excavations conducted in conjunction with housing development recovered a rich and varied flaked stone assemblage from CA-NEV-529, indicating a wide range of activities took place during habitation (Lindstrom 1990). Archaeological deposits here ranged from 30cm on bedrock to 80cm in a saddle between high points. Although only one Rose Spring projectile point was recovered, representing one period of occupation at CA-NEV-529 from ca. 1300 to ca. 700 B.P.; obsidian hydration data reflect an ancient and sporadic occupational history. Hydration data clustering from 7.4-6.0 microns indicate occupations before ca. 7000 B.P., while a second data cluster from 4.7 - 3.7 microns represents occupations from probably ca. 5000 to ca. 500 B.P. The artifact assemblage from the 40cm deep deposit at CA-NEV-530/H is much smaller, reflecting infrequent use, probably by CA-NEV -529 residents. One basalt Martis Contracting Stem projectile point indicates site use from ca. 5000 to ca. 3000 B.P.

Initial archaeological reconnaissance of Schallenberger Ridge is reported by Lindström (1987) when she surveyed the ridge to verify claims by Crofutt (1869, 1873, 1874, 1880) of log chutes with "logs crashing down the hillsides and plunging into Donner Lake." No evidence of early logging was observed, although recent logging was noted west of Lakeview Canyon. Lindström identified isolated artifacts (e.g., can fragments, shovel blades, amber, amethyst and olive glass fragments) scattered along the western and central portions of the ridge (Lindström 1987:39). No archaeological sites were recorded in the current project study area.

The Emigrant Trail, CA-PLA-699H, travels across the project area, north of Cold Creek. Several organizations, including DPR, Trails West and Oregon-California Trails Association, have identified physical manifestations of the trail in Coldstream Valley. The portion of the trail located in the current project area has been designated as a Class IV-Impacted Original Trail which is defined as "trail route is accurately known, but the trail itself has lost permanently its original physical and environmental integrity" (DPR 1991).

A portion of the project study area was surveyed by Shannon Gilbert and Scott Green, Sierra District Archaeologists, in 2001, in preparation for a roads and trails improvement project (i.e., Coldstream Watershed Road & Trail Improvements—PEF #301-2001-02). A total of six archaeological sites were identified in 2001 including the Schallenberger Ridge Site (initially designated as the "Domino Site"), Horseshoe Bend Site, Grave Site, Creek Overlook Site, Jackass Historic Site, and Jackass Prehistoric Site. Site boundaries were recorded using GPS technology, but DPR 523 forms were not completed for these resources due to a reduced project scope (Gilbert Memo 09/11/2001). Draft site records, site maps, and photographs were completed for project sites but these records were not found in the Donner Cultural Resource files or digital files dating to 2001.

Fortunately, UTM coordinates were captured using GPS technology so the resources could be easily relocated. A wooden domino (partially burned) and aqua bottle glass fragment embossed with "...LOWELL/MASS USA" was collected in 2001 and accessioned in 2005 under #301-P1437.

In 2008, Green surveyed and recorded archaeological resources located within the Coldstream Borrow Ponds Erosion Control & Habitat Enhancement Project (PEF #301-2008-01). The project involved habitat modifications to areas around Coldstream ponds, an area that was used as a quarry in the 1970s and early 1980s. The project was designed to increase wetland area and reduce variability from beaver activity, improve road drainage, and create/enhance wetland habitat.

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#### LAND USE HISTORY.

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Donner Memorial State Park was originally added to the State Park System in 1928, but only the Pioneer Monument area. The large western portion south and east of the lake was later added in 1948 through the purchase of a land development tract ranging from the eastern end of the lake to China Cove. In addition to the development company's land, one lot, in the China Cove area, was purchased from a private party who had bought that property from the developers. Other smaller parcels have been added at various times.

Parks' Office of Acquisition and Real Property Services conducted a search of property ownership in Coldstream Canyon in 2001. Records reviewed begin in 1928, but the focus was primarily on property transfers that begin in 1991 when The Nature Conservancy transferred a large portion of the canyon to California State Parks. The Conservancy property was acquired by Walter Hewett through the trustee sale of the bankrupt Sunstone International Limited Corporation. Walter Harvey, Principal of Sunstone, was attempting to develop a controversial ski resort in the early to mid-1980s. Harvey purchased three tracts within the valley from Southern Pacific, the largest being the spring water source parcel; a land parcel he still owns. The county recorder lists over 70 deeds and documents involving Sunstone and/or Mr. Harvey during this time.

California Department of Transportation (Caltrans) initially owned a 74 acre parcel located along the northeastern boundary of Donner Memorial. This area was used for gravel extraction for various road building efforts. In 1995, all but 16.9 acres of this property was transferred to Parks by a transfer of control and possession.

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## DISCUSSION & RECOMMENDATIONS

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Cultural resources inventory of Coldstream Canyon resulted in the relocation and mapping of four (4) previously identified archaeological resources and discovery of one (1) new prehistoric, three (3) historic, and two (2) archaeological sites with both prehistoric and historic elements, totaling 10 archaeological sites identified in the canyon to date. A portion of the Emigrant Trail, a diffuse historic scatter on Schallenberger Ridge, and two multicomponent sites located along Cold Creek represent previously identified resources in the project area. The newly identified historic resources reflect Chinese camp sites and other Central Pacific Railroad related features, late historic roadside refuse dumps, mine exploration and habitation site, modified landscape features, and abandoned railroad grades. The newly recorded prehistoric sites consist of sparse lithic scatters of basalt tools and debitage.

Cultural resources located within the canyon have not been formally evaluated as to whether they would be considered eligible for the National Register of Historic Places or California Register. The present unavailability of evaluative information does not preclude long-term management of the unevaluated cultural resources. The mission of the park and the nature of land use activities allow Parks to thoughtfully steward those properties that are recommended as significant, while protecting unevaluated sites from damage until such time that additional evaluative information can be collected.

Parks has established procedures to achieve our stewardship mission for cultural resources and to comply with the statutes and regulations of the State of California. The recommendations that follow outline general management practice considerations and are consistent with State Parks Management Directives and Secretary of Interior Standards. This section is then followed by site-specific recommendations and highlights future research and fieldwork needs to adequately interpret and successfully manage these valued archaeological resources.

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## PARK-WIDE CONSIDERATIONS

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### PROJECT COMPLIANCE

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Park's land use activities involve both specific projects and routine maintenance. Discretionary projects are subject to the provisions of California Environmental Quality Act (CEQA), CEQA Guidelines, and Public Resources Code sections 5024 and 5024.5. A wide range of resource concerns including cultural resources, are typically considered during the CEQA/PRC 5024 analysis and review process. When there is federal involvement, Parks projects must comply with federal regulations concerning historic resources, specifically Section 106 of the National Historic Preservation Act, which provides the regulatory procedures for historic resources in the planning process. As long as Parks complies with these mandates, cultural resources should be adequately considered during project development and implementation. Archaeological values will be identified, recorded, and evaluated by professionally qualified persons and provisions will be made for their protection and interpretation, when appropriate. The District Archaeologist, or designated

qualified archaeologist, will recommend strategies to avoid, minimize, or mitigate project related impacts to potentially significant cultural resources.

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## PARK DEVELOPMENT

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Parks will conduct thorough cultural resource reviews for all new development proposals in Donner Memorial State Park. Cultural resource surveys will be completed in areas that have not been subject to recent inventory efforts prior to development activities. Recommendations for avoiding or minimizing adverse effects to potentially significant cultural resources within the park will be made in consultation with the State Historic Preservation Officer (SHPO), pursuant with PRC 5024.5.

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## EMERGENCY WORK AND WILDFIRE MANAGEMENT PLAN

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Emergency work required to protect public health and safety may be undertaken without prior clearance, provided concurrent notice of the crisis is made to the Sierra District or Northern Service Center Associate State Archaeologist. The Archaeologist will then notify Archaeology, History and Museum Senior State Archaeologist and SHPO to determine appropriate procedures and initiate action.

Protecting and mitigating cultural resources from the effects of wildfires, fire suppression actions and post-fire conditions includes (1) pre-planning and treatments, (2) resource advising, (3) suppression damage repair, and (4) emergency stabilization/rehabilitation. Pre-planning and treatments involves identifying and prioritizing values at-risk, making that information available to fire managers, and taking necessary steps to minimize impacts. Resource advising involves actively providing resource information to fire managers during and after wildfires. Resources that are impacted by suppression actions are addressed through suppression damage repair, and emergency stabilization/rehabilitation involves protecting resources from threatening post-fire conditions (e.g., severely burned watersheds).

The Donner Memorial State Park Wildfire Management Plan (WMP) provides the operational guidelines that will be followed for all wildfires. Its contents are derived from (1) state fire management policy and (2) pertinent land management documents for Donner Memorial, and the objectives are very clear:

- ✓ To inform fire control organization staffs of sensitive park resources and policy.
- ✓ To become the local working agreement Parks and CALFire for all activities related to wildland fires in the park.
- ✓ To inform department staff of critical functions within the Incident Command System (ICS) with respect to wildland fire.
- ✓ To identify responsibility for all activities related to wildland fires in Donner Memorial State Park.

With regard to resource management issues, the Donner Memorial WMP does a good job of meeting those objectives on a basic level (i.e., planning and treatments, resource advising,





suppression damage repair, and emergency stabilization/rehabilitation are all addressed). What is lacking, however, are the details and specifics regarding how each of these tasks will be carried out and the role of Parks staff. The District Archaeologist should prepare an appendix to the WMP that contains those details and specifics. Most critical to pre-planning efforts is the development of a comprehensive GIS cultural data layer that would be referenced in the WMP and shared with the Sierra District Fire Control Advisor (most likely the District Forester).

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## ARCHAEOLOGICAL SITE CONDITION ASSESSMENT

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A primary responsibility for Parks is continued monitoring of the cultural resources identified in Donner Memorial State Park and plan ways to minimize impacts once identified. The Archaeological Site Condition Assessment program was developed by Parks to regularly inspect and record the status of archaeological resources. Tasks performed during these inspections include conducting a surface survey of the site and boundary delineation, photographing site overviews and features, documenting damage and potential threats to the site and preparing an Archaeological Site Condition Assessment Record (ASCAR) form. Archaeological site maintenance may include activities associated with preventive maintenance, routine repairs, conservation treatments and other actions used to preserve the asset. Active maintenance of archaeological sites is part of a resource stewardship and management program and may be deemed appropriate to retain structural and physical integrity, to correct or prevent deterioration, to be kept at or brought to a state of "fair" or "good" condition under ASCAR criteria, for public interpretation, during emergency situations or for other management purposes. The identified cultural resources located in Coldstream Canyon should be monitored every five years, with the exception of Multicomponent site DMS-VM-2. Due to exposure and repeated disturbance, this resource should be monitored every two years.

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## SITE SPECIFIC RECOMMENDATIONS

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The portion of Coldstream Canyon managed by Parks has received considerable investigation in recent years but many of the archaeological resources require additional fieldwork and/or archival research to develop a Cultural Management Plan for Donner Memorial State Park, and Coldstream Canyon in particular.

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## RAILROAD WORK CAMPS

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Of the nine archaeological sites with historic components, five contain Chinese pottery fragments that reflect design motifs that dominate 19<sup>th</sup> century railroad camp sites in the Sierra Nevada. The building of the Transcontinental Railroad in California was the Central Pacific. Construction of the Central Pacific Railroad from Sacramento to Promontory Point, Utah, began in 1863 and involved several thousand Chinese contract laborers. These workers performed most of the clearing, grading, and tunnel-blasting work. Contract crews, mostly Chinese, lived either alongside their work in camps or in camp trains. Camps that developed alongside the construction of the railroad have been classified into four broad

categories, each associated with a distinct type of work: survey, clearing and grubbing, grading, and rail laying. Clearing and grading crews lived in tents and makeshift shelters alongside constantly moving work sites, receiving supplies by wagon (Barter 2003:21-22).

Historical and archaeological studies associated with the construction of the Central Pacific and Union Pacific transcontinental railroads during the 1860s have identified numerous Chinese construction camps (Chew 2004; Baxter and Allen 2008; Merritt 2010). Chance and Evans (1969) characterized the ethnicity of railroad construction camps through artifact assemblages and the examination of Chinese-manufactured ceramics. Chinese construction sites along the Virginia & Truckee Railroad identified cooking features (hearths) with a distinctive U-shaped designs, domestic goods, and a variety of the tools. The rock feature identified at site CS-M2 could represent a collapsed hearth feature similar to those identified at other Chinese worker camps in California and Nevada.

The California Department of Transportation (Caltrans) prepared a thematic study to assist with evaluating the information potential of archaeological properties found in current and former work camps in California (Caltrans 2013), that is, for their eligibility for the National Register of Historic Places under Criterion D. To be eligible under Criterion D, National Register guidance states that a property must have, or have had, information to contribute to our understanding of human history or prehistory, and the information must be considered important.

Work camps are resources consisting of many discrete features and deposits that can collectively contribute to the historical importance of the larger property, in this case the Central Pacific Railroad. These sites lend themselves to comparative studies focused on themes of ethnicity, social/cultural behavior, technology, and cultural geography (Wroblewski 1996, Rogers 1997, Mires and Hutchins 1998). The Chinese camp sites identified in Coldstream should be formally evaluated to determine if they are significant as contributing elements to the larger Central Pacific Railroad property. Evaluation would likely include additional archival research to determine camp crew site type (e.g., clearing and grubbing) and limited archaeological investigation to define the nature and extent of the surface and subsurface deposits. This project will be added to the Park Infrastructure Database (PID) in hopes of acquiring funding necessary for additional research and fieldwork.

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#### COLD CREEK PREHISTORIC ARCHAEOLOGICAL INVESTIGATION

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Although overnight camping in Coldstream Canyon has been prohibited, the Cold Creek area still attracts a substantial number of visitors throughout the year using the network of roads and volunteer trails for hiking, mountain biking, and cross country skiing. Private land owners also use the Coldstream Road to access parcels within Coldstream and further upslope into Emigrant Canyon. Many of the sites have experienced substantial impact due to past quarrying, logging, and recreational activities as well as casual artifact collecting and probable pothunting events. Resource protection, rather than interpretation, should be the focus of management of significant sites in this zone because of the large number of people passing through this area, and the difficulty in monitoring visitor use and associated activities.

The prehistoric sites located along Cold Creek leaves them susceptible to ongoing artifact collection that will be difficult to eliminate. Limited subsurface testing is recommended at sites Coldstream-01-2007, DMSP-VM-2, CS-P3, and CS-P4 to identify whether a subsurface deposit is present, define content and integrity, and to confirm the horizontal distribution of material. If the deposits appear to represent a sparse flaked stone scatter, limited data recovery to remove it from management consideration may be appropriate. The close proximity of these sites to ongoing recreational use makes them difficult to manage. Until such management occurs, occasional collection of surface-exposed artifacts will likely continue. This project will be added to the Park Infrastructure Database (PID) in hopes of acquiring funding necessary for additional research and fieldwork.

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#### FUTURE WASHOE INVOLVEMENT

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Although the Washoe Tribe of California and Nevada have been invited and participated in archaeological investigations at the park, it has been limited to Native American monitoring for several projects specific to CA-NEV-13/H, the large multi-component site in the Park's Day Use areas, north of Donner Creek. Several issues have been raised by Washoe representatives throughout the consultation process for various other Tahoe park projects. First, was the general oversight of governmental agencies to notify the Washoe Tribe and interested tribal members about proposed projects on public lands. The sooner the communities are notified about a project, the longer people can talk among themselves about an area, stirring up memories for productive interviews. Although letter notifications are time efficient, the consensus was that face-to-face meetings are the most reasonable approach to enlisting tribal input.

The second, and more prevailing issue was the expressed desire to consider opportunities for cooperative management based on traditional practices. Tribes and U.S. Government agencies have entered into co-management agreements to accommodate tribal interests in regaining access and reasserting traditional practices on ancestral lands. One such agreement is between the Washoe Tribe and the U.S. Forest Service in the Lake Tahoe basin (i.e., cooperative management of Meeks Bay Meadow). The implementation of the co-management agreement allows not only access to ancestral sites but also the restoration of traditional uses. The Tribe's goal is to help preserve its rich cultural heritage and historical relationship with Lake Tahoe, while reintegrating traditional ecological knowledge.

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#### CHAIN OF TITLE SEARCH

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A historic chain of title search should be conducted for lands currently managed by Parks in Coldstream Canyon, located within T17N/R16E, Section 19, 30, T17N/R15E, Section 25, Placer County. Parks' Office of Acquisition and Real Property Services conducted a search of property ownership in Coldstream Canyon in 2001. Records reviewed begin in 1928, but the focus was primarily on property transfers that begin in 1991 when The Nature Conservancy transferred a large portion of the canyon to California State Parks. Conducting a chain of title for the earlier periods of land ownership would help to clarify questions of modified landscape features that appear unrelated to the construction of the railroad, historic logging era, or later aggregate quarry activities. The northwest corner of

Section 30, for instance, is an uncharacteristically flat area with young lodgepole pines, and cut banks around the perimeter (Figure 24). Lindstrom mentions ice harvesting in Coldstream Canyon as early as 1866 with later operations by Coldstream Ice Company, established in ca. 1900, and the Champion Ice Co., ca. 1904 (Lindstrom 1987: 21). Further research at Placer County Assessor and Recorder offices may help to answer this question as well as build a comprehensive land ownership history for Coldstream Canyon.



Figure 24. Aerial photograph depicting a possible artificial ice pond site (Google Earth 1993).

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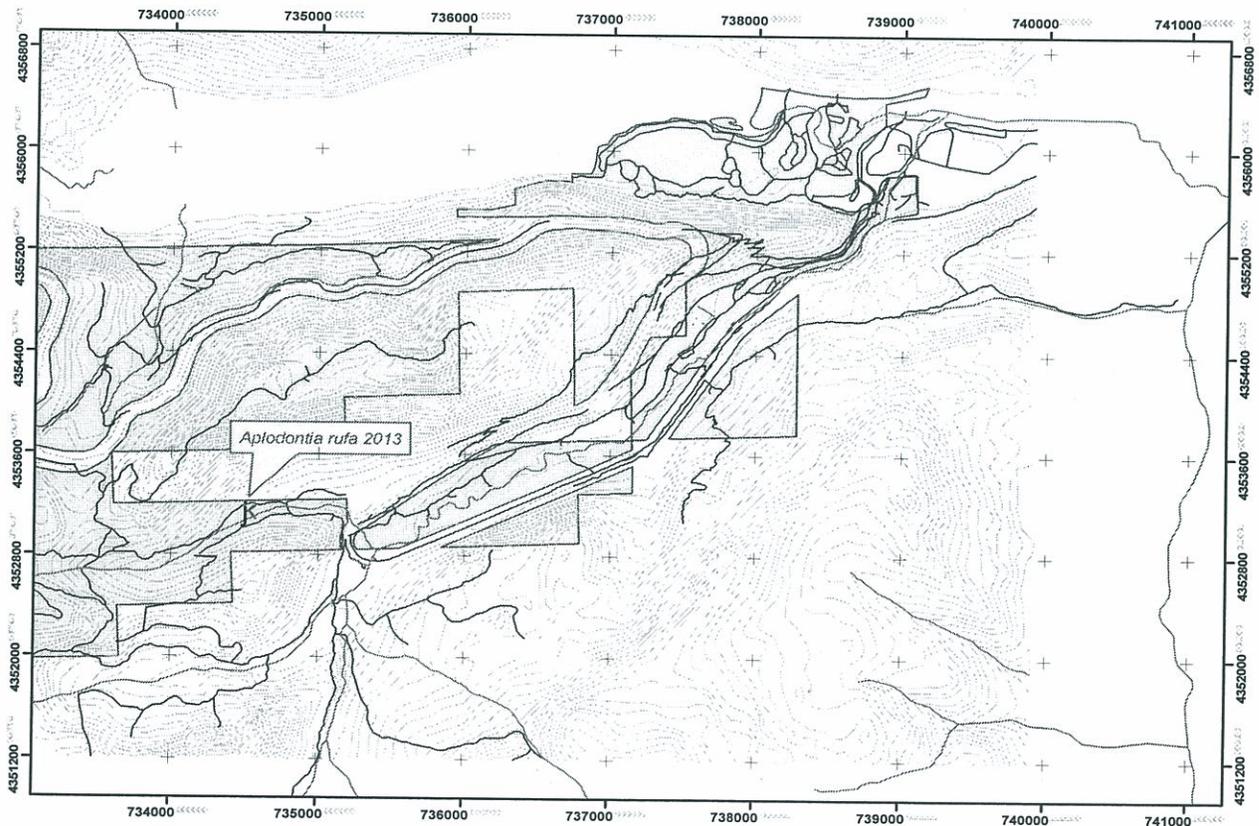
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**Appendix 1. *Aplodontia Rufa* – Donner Memorial State Park, Coldstream Canyon**

Suitable areas of Coldstream Canyon were surveyed for sign of mountain beaver (*Aplodontia rufa*) on October 10, 2013. Most of Coldstream Canyon is flat bottom creek bed or sloping upland habitat dominated by pine with sage or grass understory. There is widespread hardwood understory such as willow, alder, and some cottonwood that would be suitable for mountain beaver. The substrate along much of the creek bed in the willow/alder habitat was very rocky. All areas with this vegetative indicator condition were checked visually with an area search for burrows, grazing sign, and hay piles. There is an aspen stand at the upper reach of the project area just prior to reaching the railroad track oxbow bend which was visually surveyed. This aspen stand is very dry and the understory is sage and lodgepole. The stand is either supplied by water via deep roots that access the water table at creek elevation or via snow melt.

Above the oxbow bend in the railroad tracks, the creek becomes confined, is dominated by willow and alder, and has seeps and sloping banks. This presents more suitable habitat for mountain beaver. Although this area is outside the boundary of the proposed project area, I surveyed this location due to the proximity to the project area, and because it appeared to be the most suitable location on our property in Coldstream Canyon. I found two burrows in the same complex and grazing sign. The site is in willow/alder seep that slopes down to the north side of the creek. The stand is dominated by aspen and conifers, is well shaded, and has an herbaceous/grass understory.





## Appendix 2. Remote Camera Station Results

Remote sensor camera stations were set up in Donner Memorial State Park, near the mouth of Coldstream valley, in conjunction with the SNC grant CEQA compliance surveys. The objective was to determine the presence or absence of sensitive carnivore species in the area. There were two stations set up on Nov 13, 2013. Both stations were baited with chicken thighs (with skin and bone) and left for 18 days. Camera station 1 was on the northern hillside of Shallenberger about 125 meters uphill from the state parks Coldstream access road and about 400 meters from the gate at the state parks road and Coldstream road intersection. The habitat in this area is secondary successional mixed conifer. This area has had some forest management treatments in the past (see Figure 1). Thirty-one acres of this area were thinned and piled in 2008 and the piles were burned in 2011. This station is about 120 meters from untreated forest. There is a good amount of slash on the forest floor in this area and the slash is even denser in the untreated area to the west. Camera station 2 was in a riparian area between the Coldstream ponds and Cold creek. This area is a lodge pole stand with some downed debris and mostly sedge on the floor.

A pine marten was detected at the first camera station on Nov 25, 2013 at around 10am. The photos (see figure 3) show a marten nibbling on the bait through the chicken wire, but it was unable to get all of the bait. Another marten (or the same one) was seen on Nov 29 at around 6 pm taking the rest of the bait. The second station only detected coyotes.

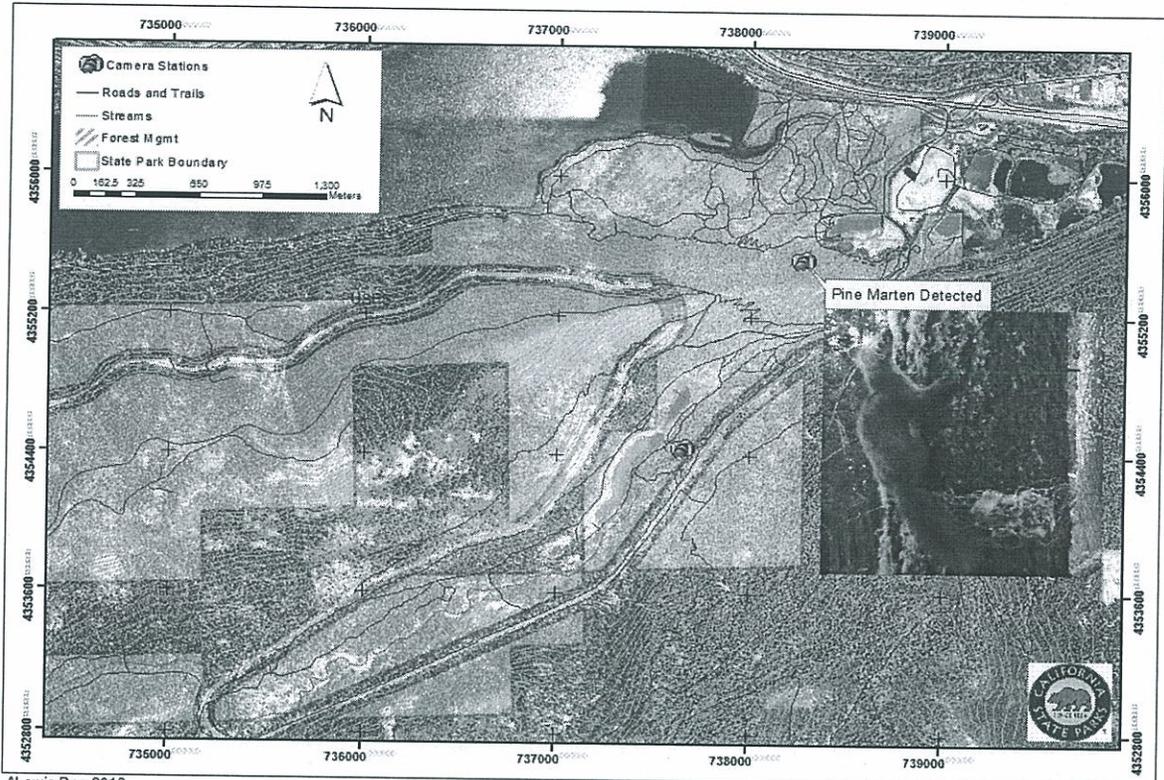


**Figure 1** Photos taken before forest thinning in 2007 (left) and after thinning in 2011 (right)

Figure 2 Map of survey area

Donner Memorial State Park

2013 Camera Stations



ALewis Dec 2013

X:\Shared\Wildlife\Donner SNC Grant 2010\Marten





Figure 3 Photos of marten taken with remote sensor camera

**Appendix 3. Photos**



Photo 1. Old quarry pond restored by California State Parks with western toads and a healthy breeding population of long-toed salamanders.

