TRUCKEE RIVER FUND

Enhancing and protecting our water resources

TRUCKEE RIVER FUND ADVISORY COMMITTEE

AGENDA

Friday February 16, 2024, 8:30 a.m.

Community Foundation of Northern Nevada

50 Washington Street, Suite 300

Reno, NV 89503

Meeting Via Teleconference and In-Person

MEMBERS OF THE PUBLIC MAY ATTEND VIA THE WEB LINK, OR
TELPHONICALLY BY CALLING THE NUMBER, LISTED BELOW.
NO PHYSICAL LOCATION IS BEING PROVIDED FOR THIS MEETING
(Be sure to keep your phones on mute, and do not place the call on hold)

Please click the link below to join the meeting:
https://us02web.zoom.us/j/8785686516?pwd=K29WZlN1a0Q2Wm1YbnpIR1l1SzJUUT09
Zoom Meeting ID: 878 568 6516
Password: CFNN

NOTES:

1. The announcement of this meeting has been posted in compliance with NRS 241.020(3) at: Truckee Meadows Water Authority (1355 Capital Blvd., Reno), at https://truckeeriverfund.org/meetings/, and NRS 232.2175 at State of Nevada Public Notice Website, https://notice.nv.gov/.
2. In accordance with NRS 241.020, this agenda closes three working days prior to the meeting. We are pleased to make reasonable accommodations for persons who are disabled and wish to attend meetings. If you require special arrangements for the meeting, please call (775) 834-8002 at least 24 hours before the meeting date.
3. Staff reports and supporting material for the meeting are available on the Truckee River Fund website at https://truckeeriverfund.org/meetin/ or you can contact Sonia Folsom at (775) 834-8002 or sfolsom@tmwa.com. Supporting material is made available to the general public in accordance with NRS 241.020(6).
4. The Committee may elect to combine agenda items, consider agenda items out of order, remove agenda items, or delay discussion on agenda items. Arrive at the meeting at the posted time to hear item(s) of interest.
5. Asterisks (*) denote non-action items.
6. Public comment is limited to three minutes and is allowed during the public comment periods. To request to speak, please use the "raise hand" feature or press *9 to "raise your hand" and *6 to unmute/mute your microphone. Pursuant to Directive 006, public comment, whether on action items or general public comment, may be provided without being physically present at the meeting by submitting written comments online by email sent to lrenda@nevadafund.org prior to the Committee opening the public comment period during the meeting. In addition, public comments may be provided by leaving a voicemail at (775)834-0255 prior to 4:00 p.m. on August 19th. Voicemail messages received will either be broadcast on the telephone call during the meeting or transcribed for entry into the record. Public comment is limited to three minutes and is allowed during the public comment periods. The Committee may elect to receive public comment only during the two public comment periods rather than each action item. Due to constraints of the videoconference system, public comment must be provided by voicemail, email, or online comment as indicated above.

1. Roll Call*
2. Public comment (limited to no more than three minutes per speaker)*
3. Approval of the agenda (**for possible action**)
4. Approve the November 17, 2023 summary meeting minutes (**for possible action**)
5. Fund balance report*
6. Review grant proposals to Truckee River Fund and select projects to be recommended for funding (**for possible action**)
    a. **#284 Truckee River Watershed Council**: South Euer Valley Road Improvement Project, $156,681.48
    b. **#285 Sierra Nevada Journeys**: Watershed Education Initiative, $35,933
    c. **#286 Tahoe Rim Trail Association**: Trailhead Ambassador Support to Protect Tahoe's Watershed, $5,472.21

d. **#287 The Reno Initiative for Shelter and Equality**: River Stewards, $226,503.20

e. **#288 Great Basin Outdoor School**: Youth Watershed Education and Protection Projects, $9,279.60

f. **#289 Trout Unlimited**: Lower Truckee Trout Habitat Project, $49,477.47

g. **#290 Friends of Nevada Wilderness**: Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2024, $26,951

h. **#291 The Nature Conservancy- Nevada Chapter**: Independence Lake Forest Resilience Project, $183,610

i. **#292 Indigenous Peoples Council On Biocolonialism for Healing Waters Institute:** River Justice: Pollution Reduction and Sustaining Water Quality, $97,220

7. Review completed projects*
    a. **#257 TRWC** Prosser Basin Sediment Reduction Plan, $44,000 (Mike)
    b. **#259 TRWC** Donner Creek Confluence & Boca Unit Restoration, $55,700 (Bill)
    c. **#265 KTMB** 2023 Great Community Cleanup, Truckee River Cleanup, Adopt-A-River Program, & Adult and Community Education Program, $81,460 (Jim)
    d. **#276 Friends of NV Wilderness** Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2023, $26,343 (Brian)
    e. **#280 SNJ** Watershed Education Initiative, $35,933 (Jim)
8. Review 2024 meeting calendar*
9. Committee and staff comments*
10. Upcoming Meetings (**for possible action**)
    a. Thursday April 11, 2024 - Fieldtrip to Pyramid Lake Fisheries
    b. Friday May 17, 2024 at 8:30am
11. Public comment (limited to no more than three minutes per speaker)*
12. Adjournment*

MEETING MINUTES
(TRANSCRIPT SUMMARY)

TRUCKEE RIVER FUND ADVISORY COMMITTEE
MEETING OF NOVEMBER 17, 2023

(Meeting via Teleconference and In-Person)

The following meeting minutes is a summary of the transcript for the Truckee River Fund Advisory Committee meeting held at 8:30 a.m., Friday, November 17, 2023, via teleconference and in-person.

Those Present: Committee Members: Brian Bonnenfant, Chair; Jim Smitherman, Vice Chair; Bill Bradley, Mike Brisbin, Don Mahin, Dave Stanley, Terri Svetich, Peter Gower, Neoma Jardon. Also: Lauren Renda, Community Foundation of Western Nevada; John Enloe, Sonia Folsom & Kara Steeland, TMWA; Sarah Ferguson, Council for TRF; Susan Merideth, TRF Minutes Recorder. Members of the Public: none.

Agenda Item #1: Roll Call: Roll call was taken. A quorum was noted.

Agenda Item #2: Public comment: There was no public comment at this time.

Agenda Item #3: Approval of the agenda: Peter Gower motioned to approve the agenda for the November 17th meeting, and Don Mahin seconded the motion. The agenda was unanimously approved.

Agenda Item #4: Approve the August Summary Meeting Minutes: Bill Bradley motioned to approve the Meeting Minutes (Transcript Summary) for August 18, 2023 including a grammatical correction to paragraph four. Jim Smitherman seconded the motion. Committee Members who were not present at the previous meeting abstained from voting: Don, Paul & Neoma. The motion was unanimously approved by the remaining Committee Members present.

Agenda Item #5: Welcome newly appointed TRF Advisory Committee members:

The TRF welcomed two new members to the Committee:

Neoma Jardon joined the Committee representing the City of Reno. Neoma is the Executive Director of Downtown Reno Partnership, which is the business improvement district that represents 110-block area of downtown and 1,500 property owners. A big part of the business improvement district boundary area is the [Truckee] River, so they have direct interest in its well-being, health and water quality. Prior to her roll at the DRP, Neoma was a

Reno City Councilwoman and Vice Mayor for 10 years and served on the Board of Truckee Meadows Water Authority.

Peter Gower also joined the Committee representing the City of Reno. Peter has worked for The Nature Conservancy for the past 2 years, first as the Renewable Energy and Land Use Status Director for the Nevada Chapter of TNC, and he is now with the Climate and Renewable Energy Program for TNC's Western Division. Peter's background is in land use planning, including serving on the City of Reno Planning Commission for nearly 9 years and as an environmental consultant/planner for 10 years.

Agenda Item #6: Review and approve revised RFP and evaluation criteria rubric:

Based on comments from the Committee, Sonia Folsom and Kara Steeland from TMWA presented a revised RFP and a Scoring Rubric for Grant Proposals designed for evaluating TRF proposals.

Changes to RFP

- The *TRF Grant Priorities* was reduced to a list of six, with the more general priorities of *Meet Multiple Objectives* and *Leverage Stakeholder Assets and Participation* moved to the rubric criteria instead.
- Added under *Grant Match*: "For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using cash match." This opens funding and partnerships to areas below TMWA water treatment plants without placing the entire financial burden on the TRF.
- A budget template was updated.
- The *Evaluation Criteria* section based on the Scoring Rubric was added to assist applicants.
- Don suggested adding TMDL criteria in addition to the 303d designation (impaired waters) under *Watershed Improvements* priorities.

After discussion about the possible applications of the Scoring Rubric, the Committee decided to add the criteria to the January RFP as a guide for applicants (excluding the scoring table), and Committee members may use the rubric in their evaluation process but are not required to do so. The scoring rubric will be for personal Committee Member use and not part of the public record.

Mike Brisbin motioned to change the RFP language as drafted and to include evaluation criteria in the RFP to assist applicants. Neoma Jardon seconded the motion and it was unanimously approved.

Agenda Item #7: Review completed projects:

TRF#270 from Great Basin Outdoor School: Youth Watershed Education and Protection Project (Stanley):

Dave Stanley reported on the GBOS youth science camps. The original proposal included outreach in the Lake Tahoe area, which was not approved by the Committee because Tahoe is outside the scope the TRF. By excluding the Tahoe science camps, the number of students reached via the Spring and Summer Day Camps was greatly reduced (158 versus 680 total if those camps were included). The proposal called for 500 students to be reached.

On the positive side, the gain in knowledge and connection to the watershed that the students who participated in the camps exhibited was in excess of the 75% target in their proposal, and the overall measure of success was high based on students scoring their experience. The data collection component was also a big success, and GBOS partnered with a Mountain View Montessori School in the effort.

Overall, GBOS completed the goals they set, with a lower per person impact than if Tahoe camps were included.

TRF#283 from One Truckee River: One Truckee River Partnership and engagement with the public (Svetich):

Terri Svetich reported on the OTR partnership and engagement with the public. Terri noted that it can be challenging to bring people together, and they have been successful in that. OTR completed more Commission Meetings than originally expected, and they collaborated with 19 partner agencies, which was also more than anticipated.

Overall, OTR met and exceeded their goals.

Agenda Item #8: Review and approve the tentative 2024 meeting calendar:

A tentative meeting calendar for 2024 was presented to TRF Advisory Committee for approval. Bill Bradley motioned and Don Mahin seconded the motion to accept the 2024 meeting calendar as presented. The Committee unanimously approved the motion.

Agenda Item #9: Committee and staff comments:

Lauren expects to be able to make the next round of proposals available to the Committee a couple of weeks in advance of the next meeting on February 16th, and there will be an online portal setup for Committee Members to access and review applications.

Agenda Item #10: Next meeting: February 16, 2024 at 8:30am: Peter Gower motioned for the next meeting to be held February 16, 2024 at 8:30am. Bill Bradley seconded the motion, and it was unanimously approved by the Committee.

Agenda Item #10: Public comment: *none*

Agenda Item #11: Adjournment: The meeting was adjourned at 9:55 am.

TRF #284 South Euer Valley Road Improvement Project

Truckee River Fund- Spring 2024

Truckee River Watershed Council

Lisa Wallace
PO Box 8568
Truckee, CA 96162

O: 530-550-8760

Eben Swain

PO Box 8568
Truckee, CA 96162

eswain@truckeeriverwc.org
O: 530-550-8760

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Truckee River Watershed Council

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

91-1818748

Director of Organization*
Lisa Wallace

Project Contact Name*
Eben Swain

Project Contact Postion/Title*
Project Director

Project Contact Email*
eswain@truckeeriverwc.org

Project Contact Phone Number*
530-550-8760 *7

Organization Mission*
We bring the community “Together for the Truckee” to protect, enhance and restore the Truckee River watershed.

Project Information

Project Title*
Name of Project.

TRF #284 South Euer Valley Road Improvement Project

Amount Requested*
$156,681.48

Project Start Date*
04/01/2024

Project End Date*
12/31/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

The goal of the South Euer Valley Road Improvement Project is to reduce the sedimentation within the South Fork of Prosser Creek, a key tributary of the Truckee River. Restoration actions implemented will include road and drainage improvements along South Euer Valley Road; specifically replacing failed culvert systems and installing rocked low-water crossings to reduce road capture, implementing rolling dips to improve drainage and incorporating willow wattles downstream of drainage crossings to ensure sediment capture.

This project is on:*
Check all that apply

Private land

Are government permits or decision documents needed for the project?*

Yes

If so, are those permits and decision documents already secured?

If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

No

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*

Yes

If yes, please include the following information for all previously funded projects:

- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Date awarded: Spring 2023
Project title: Coldstream Canyon – Cold Creek Streambank Stabilization
Amount of Award:$119,400

Date awarded: Fall 2022
Project title: Lower Hoke Meadow and State of Donner Lake
Amount of Award: $206,000

Date awarded: Spring 2022
Project title: Donner Creek Confluence and Boca Unit Restoration
Amount of Award: $55,700

Amount of Award: $55,700
Date awarded: Fall 2021
Project title: Prosser Basin Sediment Reduction Plan

Amount of Award $44,000
Date awarded: March 2021
Project title: Bear Creek Lower Meadow Restoration Project – Phase 2 Construction

Amount of Award $51,250
Date awarded: September 2020
Project title: Restoration for Coldstream Canyon

Amount of Award $86,500
Project title: McIver Dairy Meadow Restoration Project
Amount of Award $161,000

Date awarded: October 2018
Project title: Truckee River Water Quality Monitoring Program
Amount of Award: $25,000

Date awarded: October 2018
Project title: Restoration Projects: Donner Creek and Dry Creek Meadow
Amount of Award: $92,000

Date awarded: March 2018
Project title: Truckee Meadows Restoration Project – Phase 2 Construction
Amount of Award: $30,000

Date awarded: October 2017
Project title: Truckee River Tributaries Sediment Reduction Project
Amount of Award: $165,000

Date awarded: March 2017
Project title: Big Chief, F4M Restoration Culvert Outflows
Amount of Award: $50,000

Date awarded: September 2016
Project title: Donner Creek Bank Stabilization Downstream of Railroad Culvert Final Design
Amount of Award: $90,000

Date awarded: March 2017
Project title: F4M Restoration Culvert Outflow
Amount of Award $50,000

Date awarded: September 2016
Project title: Donner Creek Concept Designs
Amount of Award: $40,000

Date awarded: September 2016
Project title: Donner Creek Bank Stabilization
Amount of Award: $92,000

Date awarded: April 2016
Project title: Johnson Canyon West #2
Amount of Award: $67,000

Date awarded: October 2015
Project title: Johnson Canyon West #1
Amount of Award: $25,000

Date awarded: September 2014
Project title: Donner Lake Watershed Assessment
Amount of Award: $70,000

Date awarded: March 2014
Project title: Truckee Wetlands Restoration – Phase 3,4, & 5 – Design
Amount of Award: $50,000

Date awarded: October 2013
Project title: Truckee River Big Chief Corridor –Restoration
Amount of Award:: $150,000

Date awarded: March 2013
Project title: Truckee River Big Chief Corridor – Implementation
Amount of Award: $11,000

Date awarded: March 2013
Project title: Middle Martis Wetland Restoration – planning and design
Amount of Award:: $120,000

Date awarded: August 2012
Project title: Phase 2 Coldstream Canyon Floodplain Restoration
Amount of Award: $196,000

Date awarded: March 2012
Project title: Lacey Creek and Meadow Assessment
Amount of Award: $50,000

Date awarded: March 2012
Project title: Negro Canyon Restoration – pre-project monitoring
Amount of Award: $25,000

Date awarded: October 2010
Project title: Coldstream Canyon Floodplain Restoration Project
Amount of Award: $135,000

Date awarded: August 2010
Project title: Truckee Wetlands Restoration Project – Phase 2
Amount of Award: $40,000

Date awarded: July 2006
Project title: "This Drains to the Truckee River" Storm Drain Stenciling Pilot Project
Amount of Award: $9,300

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*

Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

A.)
B.)
C.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

The goal of the South Euer Valley Road Improvement Project is to reduce the sedimentation within the South Fork of Prosser Creek, a key tributary of the Truckee River. The project will enhance and protect over thirty (30) acres of riparian mountain meadow in Euer Valley (the headwaters of the South Fork of Prosser Creek) and will reduce suspended sediment loads in attainment of Truckee River Total Maximum Daily Load (TMDL). This will be accomplished through implementation of restoration actions along 1.5 miles of dirt road and associated stream crossings including installation of rolling dips and low-rocked water crossings and replacing failed culverted systems to reduce erosion and sediment transfer to Prosser Creek.

The Truckee River Total Maximum Daily Load (TMDL) identifies Prosser Creek as the third largest contributor of sediment during low flow conditions (371 Tons per Year) and the fourth highest contributor of sediment to the Truckee River in high flow conditions (1,276 Tons per year. This project will make significant gains in reducing the total sediment loading entering into Prosser Creek, and subsequently into the Truckee River.

Specific work components for the South Euer Valley Road Restoration Project will include:

- Installation of up to 15 rolling dips or low-rocked water crossings to reduce road capture and restore hydrologic connectivity.
- Regrading approximately 1,550’ of roadway where rilling and/or gullying is present to reduce erosion.
- Removal of 4 failed, clogged or crushed culverts and replacing culverts with increased size and capacity to accommodate design flows.
- Installation of up to 20 willow fascines and/or log deterrents below stream/road intersections designed to filter and capture sediment prior to entering Prosser Creek.
- Decompacting soils and establishment of native vegetation along a 1.5 mile reach of degraded roadway to restore habitat and filter sediments.

In its entirety, this project consists of multiple components, including: a) building a boardwalk across wet meadow areas to reduce impact to headwater meadow systems; b) installing a bridge crossing over South Prosser Creek to alleviate current constriction and improve stream channel habitat; c) stream habitat restoration along a ½ mile reach of South Prosser Creek; and d) improving drainage and reducing erosion and sediment transfer along the 1.5 mile stretch of South Euer Valley Road. The request to the Truckee River Fund will fund improvements to the road, while matching grants will fund implementation of the remainder of the project components.

For the road improvement, rolling dips and rocked low water crossings are the treatments where perennial or ephemeral channels intersect with the road alignment. Additionally, in four locations there are existing

undersized and/or damaged culverts that will be replaced with appropriately sized and aligned pipe arch culverts. Actions will also include installation of willow fascines downstream of existing road/stream intersections to increase vegetation growth and density along the actual roadway. These will ensure filtration and settling of sediments prior to entering Prosser Creek.

Outcomes.
Project outcomes will include:
- Reduction of sediment loading to the South Fork of Prosser Creek and the Truckee River by an estimated 1.83 tons/year
- Elimination of erosion from approximately 8,000 linear feet of degraded dirt roads.
- Conversion of 1.5 miles of dirt road to a recreational trail that supports and sustains vegetation and filters sediments.
- Improved hydrologic function across 30 acres of high priority meadow floodplain in the headwaters of a tributary to the Truckee River.

TRWC and Tahoe Donner Association (landowner) will document completion of all construction milestones (e.g. mobilization, instream work, culvert removal, trail conversion), and will report project outcomes, successes and challenges in quarterly and final reports. Specific measurements of success criteria and project completion are further described in question 12 (Success Criteria) below.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

The project is located in Euer Valley, just northwest of the Town of Truckee in eastern Nevada County and within the Prosser Creek sub-watershed. The project is being implemented in partnership between Truckee River Watershed Council (TRWC) and Tahoe Donner Association (TDA). The project site is owned and managed by the TDA, which includes over 680 acres in Euer Valley designated for conservation of open lands, recreational use, and access for the general public.

Comprised of a mixture of private and federal lands, the Prosser Creek watershed is a headwater catchment of the Truckee River Basin with elevations exceeding 9,000 feet. Much of the watershed is steep and comprised of first order streams that receive over 40 inches of annual precipitation (USGS, 2021). Headwater streams, beginning as spring seeps and first-order stream channels in a stream and river network, have an immediate and intimate connection with the terrestrial environment, forming an extensive terrestrial/aquatic mosaic. However, the very attributes of headwaters that make them critical to the health of stream networks also make them exceedingly vulnerable to degradation when landscapes are altered by roads, trails, and grades.

Please see attached site location and regional map documents for additional information.

3.) Project Description*

Euer Valley_Project Maps.pdf
The project is an implementation and restoration project that seeks to reduce excess sedimentation in the South Fork of Prosser Creek by addressing degradation caused by modern and historic road and trail systems that are identified as heavy sediment contributors to Prosser Creek and to the Truckee River.

The project will reduce the suspended sediment load to the Truckee River by 1.83 tons/year. This is calculated as a relative percentage of the annual suspended sediment load estimates for Prosser Creek per the

TMDL staff report (Amorfini & Holden 2008) and the size of the project site (30 acres) relative to the Prosser Creek sub basin (20,791 acres). The importance of this reduction is amplified by the "headwater" nature of the project site. Situated at the head of the 350-acre Euer Valley meadow complex, the degradation at the project site threatens to unravel functional portions of the system. Addressing this relatively acute site not only reduces the suspended sediment load to the Truckee River, but also protects against future increases.

The Prosser Creek Watershed has an extensive history of logging, which often required the construction of narrow-gauge railroads, skid trails, log landings, and logging roads installed without consideration of proper drainage or impacts to natural resources including receiving waterbodies.

Legacy land-uses and associated roads, such as those described above, are considered to be high sources of excess runoff and sediment that further degrades stream and riparian habitat and has long-term effects on water quality and on the management of water impoundments (ie Prosser Reservoir). South Euer Valley Road is one such road that exhibits road capture at multiple perennial and ephemeral stream crossings. Based on pre-project analysis, and discussions with TDA, a long-term solution is needed to be able to fully address stormwater runoff and sediment impacts.

The South Euer Valley Road Improvement Project was originally identified in Tahoe Donner Association's Trails Master Plan (TDA 2013), a guiding document that identifies opportunities within TDA's jurisdiction to enhance recreational user experience and improve environmental conditions. The Project was further analyzed and prioritized as a component of the Euer Valley Restoration Project (TRWC 2021) and in the Prosser Roads Assessment (TRWC 2022), with funding for the Assessment provided by the Truckee River Fund.

Through the Prosser Roads Assessment, a flow accumulation analysis was completed to identify potential areas of disturbance defined by road-related flow modifications or stream capture. As a result of this analysis, South Prosser Road was designated as impaired due to failure of drainage systems, road capture and impacts to water quality. The designation of impaired has the following definitions per the Prosser Roads Assessment: "road/trail/grade segments that are actively contributing excess runoff and sediment to active channels; requiring maintenance and drainage improvements or, if not in use, decommissioned. Culverts show complete failure, clogged with sediment, or severely undersized and express evidence of frequent backwatering and/or downstream scour".

Per discussions with TDA, the project team intends to make the road passable for construction equipment and emergency vehicles but will maintain more natural conditions to allow for continued growth of native grasses and vegetation. In addition to significant improvements in drainage, the growth and establishment of vegetation will help to reduce erosion and sediment transfer and will restore functionality of the currently degraded road system. In order to implement the infrastructure and steam habitat improvements that are included as components of this project, the road will be made passable by the selected contractor for construction access and then the full suite of proposed road maintenance and improvements will be completed as the Contractor demobilizes from the site.

The South Euer Valley Road Improvement Project is planned for construction in 2024. However, contractor bids have come in above available funding Significant funding for this project is already secured from the State of California and from TDA. Funding from the Truckee River Fund will close the funding gap and provide sediment reduction benefits to South Fork of Prosser Creek, a key tributary to the Truckee River.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

Watershed Improvements.

The project will decrease sedimentation and support attainment of the 303(d) listed TMDL pollutant to Truckee River. This project also enhances watershed function and habitat within the Middle Truckee watershed by significantly reducing erosion and sediment transfer from an active loading source to South Prosser Creek. Project components funded by other cost-share sources will help to stabilize eroding streambanks, improve aquatic habitat, enhance riparian vegetation and provide sustainable recreational use to reduce impacts on sensitive habitat areas. Prosser Creek is in the top three/four producers of excessive sedimentation (LRWQCB 2008).

Support to Rehabilitation of Local Tributary Creeks and Drainage Courses.
The project will restore a 1.5 mile stretch of degraded roadway with direct connectivity to a key tributary that is a known contributor of sediment to the Truckee River. At present, failed culverted systems, poor drainage and improperly constructed roadways result in continuous erosion and high transfer of sediment loads that lead to increases in turbidity and temperature and a decrease in dissolved oxygen. The improvements proposed through this project and increased vegetative cover and density will mitigate the continued degradation of water quality.

This project will improve watershed function and reduce sediment transfer to the Prosser Creek, as well as to the main stem of the Truckee River. Beneficial water quality improvements to Prosser Creek and to the main stem of the Truckee River will be realized through decreased erosion and a significant reduction in sediment transfer.

Re-Forestation and Re-Vegetation Projects
This project addresses and restores local resources and waterways that have been significantly impacted by historical logging operations. Legacy land-uses and improperly constructed road networks are considered to be high sources of excess runoff and sediment that further degrades stream and riparian habitat and has long-term effects on water quality and on the management of water impoundments, including Prosser Reservoir.

South Euer Valley Road is one such road that exhibits road capture at multiple perennial and ephemeral stream crossings. Restored hydrologic connectivity will reduce road capture and increase the amount of water that is available in stream channels and adjacent riparian/wetland habitat. This increased water availability will allow for greater retention later into the summer months and water will slowly be released in times it is needed most, particularly in the later summer and fall months and will help to increase late-season water supply in years where drought conditions are present.

Stewardship and Environmental Awareness
The project will include outreach to community members through newsletters, email updates and project site tours. Outreach will be designed to increase understanding and importance of stream and habitat restoration and improvements to water quality through reduction of sediments and other pollutants within the watershed. Specific tasks of the program include leading project site tours, producing interpretive signage, and publishing articles in our on-line and print newsletters. Volunteers will also support the project on TRWC's annual Truckee River Day.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

As previously noted, the majority of environmental regulatory permits for this project have been obtained and authorized. TRWC staff is currently preparing and compiling necessary information to submit to Nevada County to obtain the grading permit for this project. The grading permit from Nevada County is anticipated to be authorized no later than May 1, 2024.

Environmental Permit	Status	Completion Date
CEQA – MND (Nevada County)	Complete	December 2022
Lahontan 401 Water Quality Certification	Complete	June 2023
U.S. Army Corps Nationwide 27	Complete	November 2023
California Department of Fish & Wildlife	Complete	May 2023
Nevada County Grading Permit	In Process	May 2024

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

TDA owns and manages substantial open space areas including over 680 acres in the headwaters of Prosser Creek/Euer Valley. These areas are established for purposes of conservation and public recreational access. Improvement made to the project site will be managed and maintained in accordance with the standards established by TDA. TRWC will work closely with consultant team members and TDA representatives to support the continued visual assessment monitoring including photo-documentation, infrastructure stability and vegetative cover/vigor for a minimum of three years following project completion. There are no foreseeable zoning, land use, or development plans that may affect the proposed project.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

Future phases of the project will include post-project monitoring, revegetation and determination of the necessity of implementing any adaptive management actions. Funding is provided by the State of California and by Tahoe Donner Association to complete all necessary actions and future phases of project implementation.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Eben Swain, Project Director with TRWC, will be the lead staff person from TRWC and will handle all project management and grant administration tasks for this grant agreement. Lisa Wallace, Executive Director, will provide additional support and oversight as needed.

The project will be implemented in partnership by TRWC and TDA. TRWC has completed more than 20 projects of similar scale and scope in the past fifteen years, including multiple projects with Tahoe Donner. Staff at both organizations have implemented dozens of large-scale restoration and trail projects. TRWC will provide direct project management, grant reporting, contracting, environmental permitting, construction management, and monitoring. Tahoe Donner will participate in design review, construction oversight, public communication, and outreach.

Staff members from Wildscape Engineering, Western Botanical Services and Linchpin Structural Engineering will assist in providing construction oversight, project inspections and coordination with selected contractor team. These consulting firms have completed all field/topographic surveys, hydraulic modeling and structural engineering design recommendations for the project resulting in a comprehensive set of project design plan documents and technical specifications that will guide implementation and construction of all project components, including the road improvements proposed in this funding application. Design documents and technical specifications are available upon request. This highly qualified team provides

invaluable experience in ensuring project implementation follows established design criteria by providing quality project and contractor oversight.

Implementation contractors will be required to hold a State of California Class A General Engineering contractor's license and Class C-27 landscaping contractor's license. They must also have experience with multiple projects in montane (>4,000' elevation) meadow, floodplain, and riparian restoration. Project experience must include road maintenance & drainage improvements, revegetation and bridge, culvert, and trail construction. TRWC is currently in negotiations with a contractor team who will implement all planned infrastructure, restoration, and road improvement components for this project. We anticipate finalizing a contract for this project in early Spring, 2024

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

Part-time) Eben Swain (TRWC), Lisa Wallace (TRWC) and Beth Christman (TRWC) will dedicate a portion of their time to this project. Consultant and contractor staff will also dedicate a portion of their time to this project.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

Volunteers will assist with revegetation of the project site. Specific tasks will include willow staking, re-seeding and mulching. 20 volunteers will contribute a total of 90 hours.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

Task	Start Date	Completion Date
Contract Award for Project Implementation	March 2024	March 2024
Nevada County Grading Permit	March 2024	May 2024
Project Implementation	July 2024	October 2024
Project Management and Reporting	March 2024	December 2024

12.) What factors will indicate a successful project?*

The following factors will be measured to ensure project success:
Completion of project restoration actions. TRWC and TDA will track and document the completion of construction milestones (e.g. mobilization, instream work, culvert removal, trail conversion). Implementation of construction components will adhere to the guiding project design plan set and will result in the installation of up to 15 rolling dips or low-rocked water crossings, regrading of approximately 1,550' of

roadway, removal and replacement of 4 failed culverted crossings, installation of up to 20 willow fascines and decompaction of soils along 1.5 miles of degraded dirt road.

The actions noted above are designed to significantly reduce erosion and the transfer of sediments to Prosser Creek and to the Truckee River and will help to attain a reduction in sediment loading in support of the Truckee River Total Maximum Daily Load.

Completion of post-project monitoring. Post-construction monitoring will be completed for a 3-year timeframe following project implementation and will include analysis of pre- and post-project data, and compilation of a monitoring report. Data collected will include documentation of improved hydrologic connectivity, sediment filtration/collection and vegetation data. Post-project monitoring will be utilized to help quantify improvements in connectivity, sediment load reduction and vegetation community metrics.

Engagement of project stakeholders and community members. TRWC and TDA will incorporate a variety of outreach methods designed to facilitate increased understanding and importance of stream and habitat restoration and improvements to water quality. These methods will include, but are not limited to project site tours, highlighting the project in newsletters and on-line media, stakeholder meetings and volunteer opportunities. Success will be determined by the number of participants, sign-up sheets and overall interest in the project.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

The primary stakeholder for this project is TDA, who owns the project area and the majority of Euer Valley. We will work closely with TDA to provide construction oversight and project management and to implement the project and monitor and report on project results. Tahoe Donner's participation will be especially critical for outreach and communication efforts and for construction oversight. Additional stakeholders within the project area include 7C Ranch who owns and maintains the property upstream of the project area and the recreational users of the TDA trail systems (summer and winter).

TRWC and TDA will work closely to provide technical oversight, project management, and decision making throughout the length of the project. Additional coordination for environmental permitting and compliance will occur with the Lahontan Regional Water Board, State Water Resources Control Board, California Department of Fish and Wildlife, Army Corps of Engineers, and Nevada County. Agency and stakeholder feedback has been incorporated into project design and long-term management plans where appropriate.

Adherence to the project goals and objectives for water quality will remain paramount in all decisions. However, without stakeholder support, those projective objectives have a lower likelihood of success. As such, TRWC and TDA will make decisions related to project implementation through a vetted process and will consider the goals of the project and stakeholder input, as well as both short and long-term success of the project when making decisions.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$77,250.00

Cash

$75,000.00

For the cash portion, is the funding already being held by the applicant for this project?

Yes

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$2,250.00

Description of matching funds/in- kind donations.*

As noted in question #1, this project consists of multiple components, including boardwalk and bridge construction, stream habitat restoration and road/drainage improvements. The funding request to the Truckee River Fund will support improvements made to the roadway, while cost share funding will support implementation of the remainder of the project components. Matching funding that is specifically related to the request to Truckee River Fund totals $77,250, or roughly 49%. This cost share is well above the 25% match amount required by Truckee River Fund, but the money is secured and will be accounted for accordingly.

Volunteers will assist with revegetation of project site and will assist with additional stabilization of restored roadway and associated drainage connections. Volunteer participation will be through TRWC's annual Truckee River Day, when we have approximately 300 persons assisting in a variety of tasks related to our many restoration projects – in 2024, TRWC anticipates that the South Euer Valley Road Improvement Project will be one of the chosen project sites for volunteer participation. Anticipated tasks will include willow staking, re-seeding and mulching. 20 volunteers will contribute a total of 90 hours.

Additional project implementation components include bridge/boardwalk installation and stream channel restoration. Monies secured from these components is provided by the State of California and by Tahoe Donner Association totaling $2,074,357. No TRF funds are requested for these project components. TRF funding will supplement funds provided by Tahoe Donner Association, and if received, will complete restoration actions along South Euer Valley Road to reduce erosion and sediment transfer.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

Financial Statements, 501(c) and TRWC Board of Directors_Submit_.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

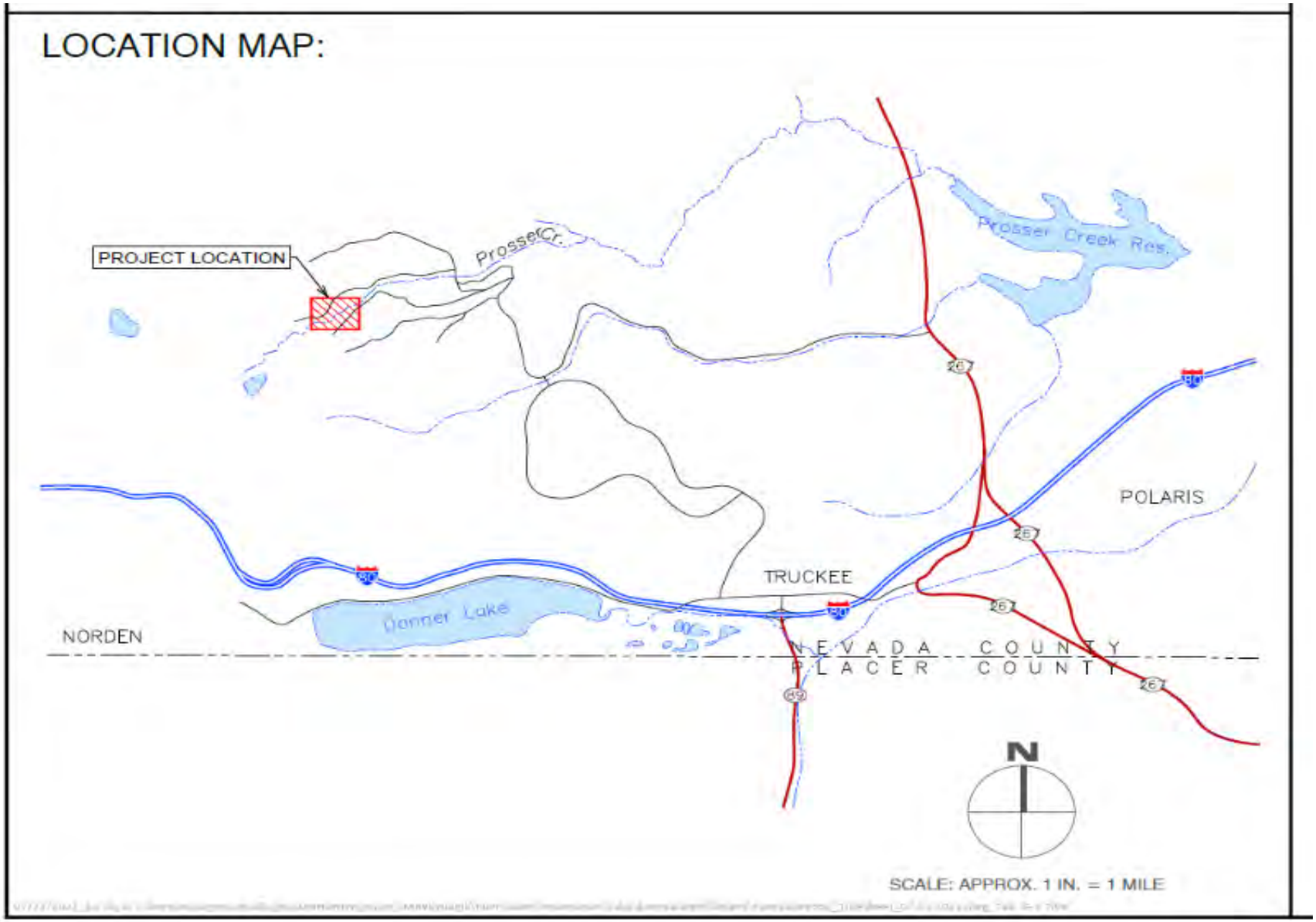
Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

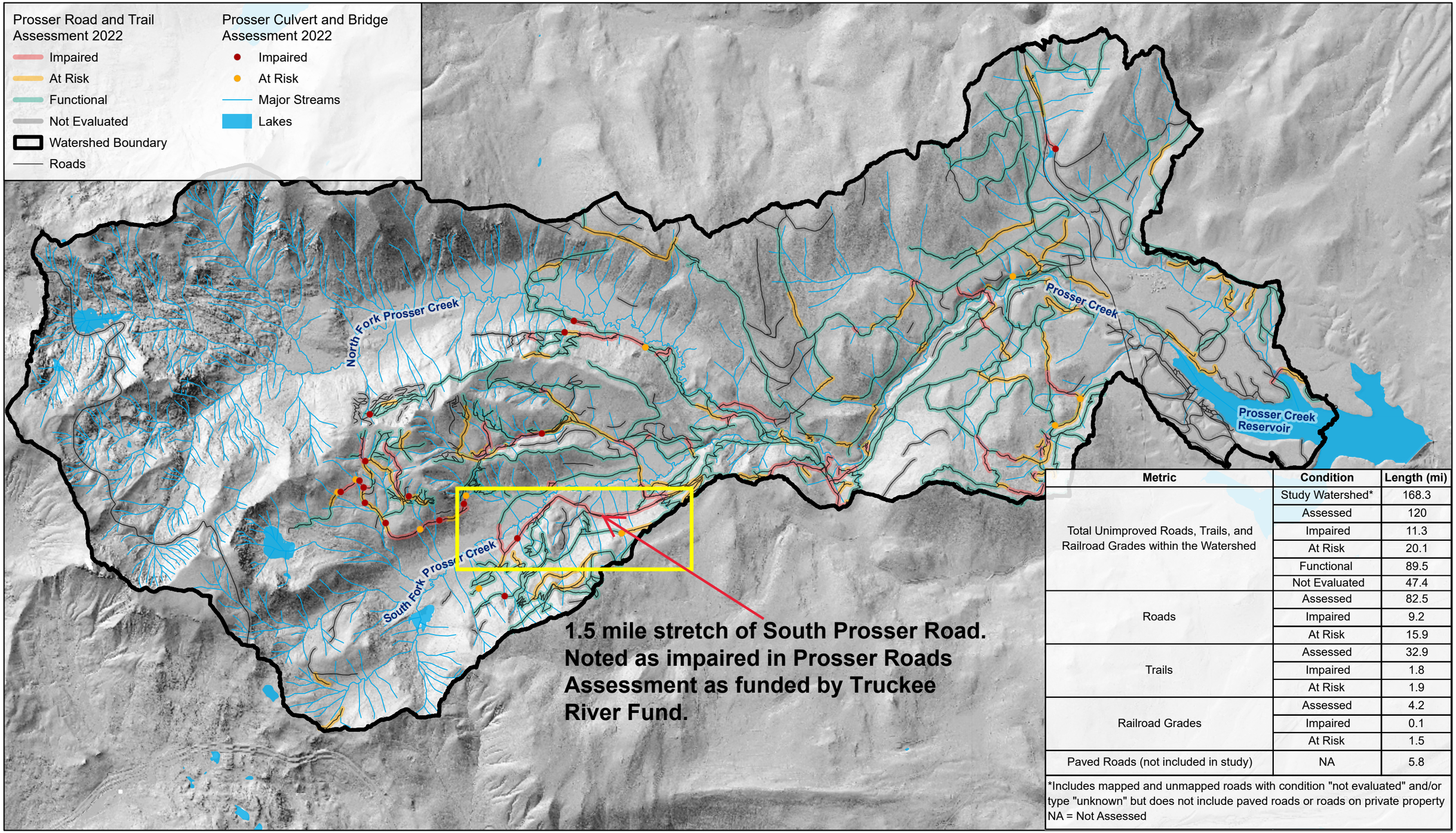
*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

TRWC_TRF_South Euer Valley Road Improvement Project_Budget.pdf

TRF Spring 2024 Funding Opportunity
Project Location/Regional Map
TRWC – South Euer Valley Road Improvement Project





Metric	Condition	Length (mi)
Total Unimproved Roads, Trails, and Railroad Grades within the Watershed	Study Watershed*	168.3
	Assessed	120
	Impaired	11.3
	At Risk	20.1
	Functional	89.5
	Not Evaluated	47.4
Roads	Assessed	82.5
	Impaired	9.2
	At Risk	15.9
Trails	Assessed	32.9
	Impaired	1.8
	At Risk	1.9
Railroad Grades	Assessed	4.2
	Impaired	0.1
	At Risk	1.5
Paved Roads (not included in study)	NA	5.8

*Includes mapped and unmapped roads with condition "not evaluated" and/or type "unknown" but does not include paved roads or roads on private property
NA = Not Assessed

Balance Hydrologics

0 1 2 3
Miles

Figure 2. Roads, Trails, and Railroad Grade Conditions Prosser Creek Watershed, Above Prosser Creek Reservoir Nevada County, CA

Path: Y:\GIS\Projects\221156 Prosser Roads+Trails\221156 Prosser Roads and Trails Analysis\221156 Prosser Roads and Trails Analysis.aprx

Budget Item Description	$/unit	Quantity	Quantity Type	TRF Funding	Other Funders	Match	Total Cost
Salaries and Wages							
Project Management (includes Executive Director, Deputy Director and Project Director)	Varies per staff position			$10,126.20			$10,126.20
Volunteers	$25.00	90	Hours		In-Kind Cost Share	$2,250.00	$2,250.00
Operating Costs							
Environmental / Permitting	$1,200	1	Lump Sum	$1,200.00			$1,200.00
Mileage	$0.655	160	Per Mile	$104.80			$104.80
Project Implementation							
Project Supplies (seed, soil, etc)	$3,200	1	Lump Sum	$3,200.00			$3,200.00
Construction Contract (includes mobilization, site preparation, culvert installation, rolling dip/low-water crossing installation, and revegetation tasks)	$213,000	1	Lump Sum	$138,000.00	Tahoe Donner Association	$75,000.00	$213,000.00
Total Direct Costs				**$152,631.00**		**$77,250.00**	**$229,881.00**
Indirect Costs/Overhead (≤25% of budget)				$4,050.48			$4,050.48
Total Project Costs				**$156,681.48**		**$77,250.00**	**$233,931.48**

**Note: The match funding described in the budget table is related to implementation of restoration actions for South Euer Valley Road only. As noted in the TRF grant application, the project team has secured over $2 million that is allocated for the remainder of connected project components, including bridge and boardwalk construction and stream habitat restoration.

TRF #285 Watershed Education Initiative

Truckee River Fund- Spring 2024

Sierra Nevada Journeys

Audrey Bergmann
190 E. Liberty St.
Reno, NV 89501

O: 775-355-1688

Audrey Bergmann

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O: 775-355-1688

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Sierra Nevada Journeys

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

01-0881587

Director of Organization*
Sean Hill

Project Contact Name*
Audrey Bergmann

Project Contact Postion/Title*
Advancement Manager

Project Contact Email*
audreyb@sierranevadajourneys.org

Project Contact Phone Number*
925 858 7105

Organization Mission*
Our mission is to deliver innovative outdoor, science-based education programs for youth to develop critical thinking skills and to inspire natural resource stewardship.

Project Information

Project Title*
Name of Project.

TRF #285 Watershed Education Initiative

Amount Requested*
$35,933.00

Project Start Date*
03/01/2024

Project End Date*
06/07/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

With our Classrooms Unleashed program, we will provide 700 students in the Reno area with watershed education. This will include two classroom lessons, one field day at a site with access to the local watershed, and additional teacher resources and extension lessons.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*

No

If so, are those permits and decision documents already secured?

If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*

Yes

If yes, please include the following information for all previously funded projects:

- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

09/20/2023, TRF #280 Watershed Education Initiative, $35,933

03/22/2023, TRF #271 Watershed Education Initiative, $32,891

09/26/2022, TRF #267 Watershed Education Initiative for the Urban Truckee River Corridor, $30,542

03/22/2022, TRF #258 Watershed Education Initiative, $30,055

09/16/2021, TRF #251 Watershed Education Initiative, $30,055

03/17/2021, TRF #245 Watershed Education Initiative for the Urban Truckee River Corridor, $31,035

09/18/2020, TRF #236 Watershed Education Initiative for the Urban Truckee River Corridor, $32,041

04/13/2020, TRF #230 Watershed Education Initiative for the Urban Truckee River Corridor, $30,912

10/02/2019, TRF #223 Watershed Education Initiative, $37,200

03/26/2019, TRF #214 Watershed Education Initiative, $36,207

10/04/2018, TRF #205 Watershed Education Initiative, $36,207

03/30/2018, TRF #195 Watershed Education Initiative, $46,376

10/03/2017, TRF #190 Watershed Education Initiative, $35,065

03/16/2017, TRF #184 Watershed Education Initiative, $32,998

09/23/2016, TRF #179 Watershed Education Initiative, $28,446

04/19/2016, TRF #167 Watershed Education Initiative, $33,041

10/22/2015, TRF #158 Watershed Education Initiative, $28,484

09/05/2014, TRF #145 Watershed Education Initiative, $23,900

03/21/2014, TRF #140 Sierra Nevada Journeys' Watershed Education Initiative, $23,750

Fall 2013, TRF #??? Sierra Nevada Journeys' Watershed Education Initiative, $24,200

Spring 2013, TRF#??? Sierra Nevada Journeys' Watershed Education Initiative, $16,050

* It is possible that this list is incomplete. I have answered this question to the best of my ability based on our Development team's records.

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*

Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

Sierra Nevada Journeys (SNJ) proposes an innovative, culturally relevant program for Washoe County area youth, including a comprehensive approach to watershed education through the Watershed Education Initiative (WEI). Thanks to the generous and ongoing support of the Truckee River Fund, the WEI has been a component of our programming since 2011.

Through WEI, students can touch, feel, and experience their watershed, providing a foundation of interest and understanding as they continue their education and their lives. WEI will successfully meet the following objectives:

Outputs:
- Deliver WEI to 700 K-8th grade students within the Truckee River Watershed
- All students receive first-hand experience with the local watershed through a field study on the Truckee River or one of its tributaries, or, in the case of a distance learning model, a virtual field trip or case study of the Truckee River.
- Provide 26 teachers with WEI extension lessons

Outcomes:
- 100% of students participating in "Hands in the River" will be able to draw and describe the Truckee River Watershed
- 100% of students participating in the "Hands in the River" curriculum will complete water quality testing at/on the Truckee River to assess the health of their local watershed
- 90% of students participating in "Hands in the River" will be able to identify the function of storm drains and name three ways they can help reduce the amount of pollution entering the storm drain.
- 80% of students participating in "Hands in the River" will feel comfortable in nature following their field study.
- 95% of teachers will report that the program is helping to build critical thinking skills among their students.

Methods to measure outcomes: To accurately measure program success and content proficiency, Sierra Nevada Journeys' instructors administer pre- and post-assessments to all students. This method of measurement models end-of-year state testing for schools, which is used to measure national expectations for learning. In addition to student pre- and post-assessments, classroom teachers are given surveys.

Methods to measure outputs: The Sierra Nevada Journeys' Education Team manages an internal database that tracks details on participating students, schools, parents, and volunteers.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

The classroom component of WEI will take place at schools within the Washoe County School District. The program's field sites are located within and downstream of the urban corridor of the Truckee River, such as Oxbow Nature Study Area, Galena Creek Regional Park, and the McCarran Ranch Preserve. Field site locations are convenient and close to home for local students, increasing their sense of ownership, place, awareness, and comfort in these natural areas. The program highlights regions along the Truckee River impacted by urban growth and development.

3.) Project Description*

SiteMaps.sm.pdf
Sierra Nevada Journeys' Watershed Education Initiative is a dynamic education program intentionally designed to build an understanding of student's local watershed, including human impacts on the watershed, water quality, and issues surrounding watershed protection. The program occurs over several sessions. After a brief orientation, our educators go into classrooms and teach two lessons. Each lesson fosters students' interest in science by using hands-on activities like creating a watershed model.

The program culminates with a 3-hour field study at a local nature site, where students apply what they've learned in a real-world context. Field sites for the Watershed Education Initiative include Oxbow Nature Study Area, Galena Creek Regional Park, and the Nature Conservancy's McCarran Ranch Preserve. Students explore, assess, and collect data about the health of the Truckee River Watershed by observing the river, collecting macroinvertebrate species for study, and discussing how we can use the data to make a decision on overall river health. The program also embeds opportunities to build critical thinking skills and social-emotional learning.

While in-class and field-based lessons reach students, WEI's additional outreach components support teachers, engage families, and reach community volunteers. Through extension lessons, Sierra Nevada Journeys supports teachers in getting their students back on track after distance learning and extending watershed learning beyond the Sierra Nevada Journeys-led learning experiences. Classroom teachers receive additional materials covering watershed exploration, and our instructors work one-on-one with classroom teachers during orientation to identify strategies that deepen student learning. We also engage families through a follow-up email that includes questions for guardians to discuss with their students, a link to photos from their field day, and information about the field site so they can visit together. We also engage parents as chaperones during our field trips to support student learning and bolster family engagement and excitement about learning objectives.

Sierra Nevada Journeys believes that science and nature are for everyone. We prioritize partnerships with schools primarily serving youth who have historically been denied access to high-quality science education and outdoor learning experiences. With this funding, Sierra Nevada Journeys will serve 700 students in approximately 26 classrooms in the Truckee River Watershed. Students served with this grant will be those who have the highest financial and learning needs, ensuring we address the science and outdoor equity gap.

In Summary, the Watershed Education Initiative includes:
• The school-based component includes two in-class lessons (three) hours of in-class instruction. Students participate in hands-on lessons incorporating the Truckee River watershed, point and non-point source pollution, invasive species, sources and impacts of erosion, water conservation, and stewardship.
• The field-based component includes one day of outdoor science education as students hike along the Truckee River Watershed. Students seek clues about the health of the watershed and determine water quality by collecting and identifying macro-invertebrates or conducting chemical tests such as pH, dissolved oxygen, or turbidity. Students use evidence to draw conclusions about the health of the Truckee River Watershed.
• SNJ provides five ready-to-use classroom extension lessons for teachers that help students prepare for and review learning objectives, as well as extend and reinforce each SNJ-directed lesson.
• To encourage family engagement, SNJ provides teachers with a template to email parents with a summary and pictures of their child's experience after each unit, along with information for family-based discussion of the curriculum
• The volunteer component of the program builds our capacity to involve the local community and broadens accessibility to our programming for low-income schools by helping to keep costs low.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

WEI is an education program that addresses water, water quality, and watershed protection for K-8th grade students, directly aligning with grant priority VI: Stewardship and Environmental Awareness. Students gain first-hand experience determining water quality, exploring human impacts on their water source, and obtaining skills, knowledge and field experience to connect them to their local river. The overall long-term program impacts include:
• Students understand essential science concepts related to the Truckee River watershed and can articulate how their actions affect the Truckee River watershed and local ecosystems.

• Teachers use extension lessons and implement more hands-on exploration of the watershed. Parents and community members engage in watershed education directly through WEI volunteers.
• Health of the Truckee River watershed and local ecosystems improves as students and their families adopt environmental stewardship practices that help reduce water pollution and human impacts.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

N/A

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

N/A

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

N/A

8.) Identify the principals involved in leading or coordinating the project or activity.*

Credentialed science educators on the SNJ staff will be directly responsible for the coordination and delivery of watershed education programs. Olive Schillo, Program Director, is a former Montessori preschool director with a Bachelor of Science in Parks, Recreation and Tourism with a concentration in Adventure and Outdoor programs from the University of Salt Lake City, UT.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

4 full-time, 6 part-time

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

Approximately 50 volunteers (including parent volunteers), and an estimated 250 hours of volunteer time.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

Recruitment/Scheduling: SNJ outreach efforts are continuous. Outreach is now underway for the spring semester. SNJ targets schools that participated in watershed programming in the past and new schools that have not received WEI.

Program Delivery: SNJ instructors will deliver engaging watershed education lessons to 700 students through school-based and field-based programs beginning in late January and running through mid-June.

Evaluation: SNJ staff will compile student assessment data throughout the grant period. These results will inform any changes to the curriculum to ensure effective programming in the future. Evaluations will begin in late June and data will be compiled over the summer.

Final Report: Submit the final report to the Community Foundation of Western Nevada. This report will include a summary of the work completed, student assessment data, and a budget update. It will be drafted in June 2024 and ready to submit by the deadline.

12.) What factors will indicate a successful project?*

Success will be found through the delivery of the Watershed Education Initiative to 700 students in grades K-8th. All students receive first-hand experience with the local watershed through a field study on the Truckee River or one of its tributaries. Provide 26 teachers with WEI extension lessons. Through the Watershed Education Initiative, students will:

- Be able to draw and describe the Truckee River Watershed;
- Complete water quality testing at/on the Truckee River to assess the health of their local watershed;
- Be able to identify the function of storm drains and name three ways they can help reduce the amount of pollution entering the storm drain;
- Feel more comfortable in nature following their field study; and
- Report that the program is helping to build critical thinking skills among their students.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

We routinely share ideas and partner with organizations for curriculum and program development. We collaborate with Better Environmental Education, Teaching, Learning & Expertise Sharing (BEETLES) methodology through the Lawrence Hall of Science at UC Berkeley, for training in outdoor science education best practices. We also partner with Project Learning Tree, Project WET, NatureBridge, and the Mountain

Maidu Tribe for curriculum and program development, and we collaboratively share ideas with the Desert Research Institute, and the University of Nevada, Nevada Teach program.

Additionally, several other partner agencies make our field experiences possible like The Nature Conservancy, Washoe County Regional Parks and Open Space, the City of Reno, and the Nevada Department of Wildlife

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$11,978.00

Cash

$11,978.00

For the cash portion, is the funding already being held by the applicant for this project?

Yes

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

Description of matching funds/in- kind donations.*

$11,978 from the Nevada Division of Environmental Protection

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

SNJ Spring 2024 Combined Attachments.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

TRF Program Budget.pdf

Directions to the Site: Oxbow Nature Study

Habits and Habitats Field Site
Oxbow Nature Study Area

Oxbow Nature Study Area is located at the west end of 2nd street.

Take I80 West to the Keystone Exit.

Turn left onto Keystone and continue down the road until you reach 2nd Street.

Turn right on second. Continue until the road ends (turns into Davidson Road). You will end at the site. Please pull in straight to the bus unloading zone (the Yurt is on your right)

If you have trouble finding the location please contact the SNJ Office:

(775) 355-1688

Please make sure all students have:

- Science Notebook
- Pencils (x2)
- Lunch
- Water
- Appropriate clothing (shoes for hiking, warm layers, etc.)
- **All items in a backpack.**

Please make sure to bring

- Lunch & water
- Appropriate clothing (shoes for hiking, warm layers, etc.)
- Waivers for SNJ
- Grouping Forms
- Any medication, inhalers, or epi-pens for students

Google Maps Galena Creek Regional Park

Imagery ©2024 Airbus, Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO, Map data ©2024 200 ft

Galena Creek Regional Park

4.8 ★★★★★ (269)

Park

Overview Reviews About

Directions Save Nearby Send to phone Share

Google Maps

39°32'51.9"N 119°34'43.2"W

McCarran Ranch Nature Preserve

Imagery ©2024 Maxar Technologies, U.S. Geological Survey, USDA/FPAC/GEO, Map data ©2024 200 ft

39°32'51.9"N 119°34'43.2"W

39.547736, -119.578672

Directions Save Nearby Send to phone Share

McCarran Ranch Rd, Sparks, NV 89434

Program Budget for Classrooms Unleashed – Watershed Education Initiative

Item	Description	Per Student Expense	Total Expense	SNJ Match 25%	Total Request
Compensation & Related Expenses	Includes Education Personnel like Instructors, Program Directors and Coordinators	$53.74	$37,618	$9,405	$28,214
Program Costs	Direct program expenses, such as: magnifying glasses, water containers, field day health supplies, printing and paper, uniforms, etc.	$6.28	$4,396	$1,099	$3,297
Outside Contract Services	External evaluation services, DEI consultant, etc.	$1.80	$1,260	$315	$945
Occupancy Expenses	Rent and utilities	$2.73	$1,911	$478	$1,433
Operating Expenses	Such as office supplies, postage/shipping, telephone, internet, equipment rental and maint., licenses and membership dues	$3.15	$2,205	$551	$1,654
Other Misc Expenses	Staff recruitment, advertising/marketing expense, banking fees, merchant proc. fees	$0.74	$518	$129.50	$389
	Total Expenses	**$68.44**	**$47,945**	**$11,978**	**$35,933**

TRF #286 TRTA Trailhead Ambassador Support to Protect Tahoe's Watershed

Truckee River Fund- Spring 2024

Tahoe Rim Trail Association

Brooke Clayton
PO Box 3267
Stateline, NV 89449
O: 775-298-4485

Brooke Clayton

PO Box 3267
Stateline, NV 89449
info@tahoerimtrail.org
O: 775-258-2361

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Tahoe Rim Trail Association

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

94-2789846

Director of Organization*
Morgan Steel

Project Contact Name*
Brooke Clayton

Project Contact Postion/Title*
Development Coordinator

Project Contact Email*
brookec@tahoerimtrail.org

Project Contact Phone Number*
(775) 258-2361

Organization Mission*
The mission of the Tahoe Rim Trail Association (TRTA) is to maintain and enhance the Tahoe Rim Trail system, practice and inspire stewardship, and preserve access to the natural beauty of the Lake Tahoe region.

Project Information

Project Title*
Name of Project.

TRF #286 TRTA Trailhead Ambassador Support to Protect Tahoe's Watershed

Amount Requested*
$5,472.21

Project Start Date*
04/01/2024

Project End Date*
09/30/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

This funding will be used to bolster the Tahoe Rim Trail Association's educational Trailhead Ambassador program, with the specific goal of purchasing and distributing dog waste bag dispensers with a leash attachment. These waste bag dispensers will empower Tahoe's recreators to protect the Lake Tahoe Basin's watershed by properly managing pet waste on the Tahoe Rim Trail and beyond.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*
No

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*
No

If yes, please include the following information for all previously funded projects:
- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*
Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

The goals of the TRTA Trailhead Ambassador Support to Protect Tahoe's Watershed project are to educate Tahoe's recreators about the harmful effects of improperly managed dog waste on the Lake Tahoe Basin's watershed and to provide pet owners with a waste bag dispenser with a leash attachment so that they have the proper supplies to mitigate dog waste wherever they go. These goals will be achieved through the implementation of the Tahoe Rim Trail Association's (TRTA) educational Trailhead Ambassador program and evaluated based on the following measurable outcomes:

- Purchase 1,000 dog waste bag dispensers with leash attachments to distribute to trail users
- Purchase 1,000 rolls of USDA-certified bio-based waste bags to include with dispensers
- Recruit and train 30 Trailhead Ambassadors
- Provide 100 hours of sustainable recreation education through TRTA Trailhead Ambassadors
- Provide 1,000 waste bag dispensers (with a roll of bio-based bags included)

Digital records will be used to measure and report all of these outcomes. The purchase of the waste bag dispensers and bags will be easily tracked with a receipt. The TRTA's Communication Director will manage and track how many Trailhead Ambassadors are recruited for the 2024 season. Those volunteers will be trained on how to digitally track all of their volunteer time, and will also record how many waste bag dispensers they distribute. At the end of the season, we will inventory any remaining waste bag dispensers. A thorough report will be provided to the Truckee River Fund on the use of grant funds and the measurable outcomes achieved through this project.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

To ensure that waste bags are properly disposed of, ambassadors will give out dispensers at Tahoe Rim Trail (TRT) trailheads that have existing trash cans. This will include the following trailheads, which can be viewed on the attached map with their corresponding number from this list:

1. Kingsbury North
2. Big Meadow
3. Echo Lake
4. 64 Acres/Tahoe City
5. Mt Rose Summit

After recreators receive a dispenser from a TRTA volunteer, the impact of this project will circle the Lake Tahoe Basin along the Tahoe Rim Trail and beyond.

A map has been attached under Question 5 (Permitting), as it was the only available place to upload an additional file.

3.) Project Description*

Grant application supporting document.pdf

It might not be the most appealing topic, but dog poop is a serious threat to water quality in the Lake Tahoe Basin, and the Tahoe Rim Trail Association (TRTA) plans to address this threat by empowering recreators with the knowledge and tools to properly manage pet waste. The TRTA seeks grant support from the Truckee River Fund (TRF) to bolster our Trailhead Ambassador program with the purchase of 1,000 dog waste bag dispensers with leash attachments, to be distributed by Trailhead Ambassadors at popular sites around the Tahoe Rim Trail (TRT) as they educate recreators on the harm that dog feces can cause to the watershed. The TRTA's growing Trailhead Ambassador program engages the public with TRTA volunteers who love to share their passion for the trail with Tahoe's recreators.

While most dog owners know that it is their responsibility to pick up after their pet, few may realize that dog waste was actually labeled a non-point source (NPS) pollutant by the Environmental Protection Agency (EPA) in 1991. The TRTA doesn't struggle with recreators pouring herbicides or other toxic NPS pollutants on the trail and trusts that recreators will treat dog waste with the same respect if properly educated on its harmful impact and empowered to address it. Having a waste bag dispenser with a leash attachment means that recreators will be empowered to properly manage dog waste throughout Lake Tahoe's watershed, not just on the TRT. This leash attachment consists of a carabiner-style clip and two elastic straps, so the dispenser could also be attached to a backpack strap, a belt, a trekking pole, etc. Trail users often choose the TRT because of its stunning views of Lake Tahoe, and this project will empower them to help protect it.

In addition to purchasing waste bag dispensers and a roll of environmentally friendly waste bags to include with each, grant funding from TRF would help the TRTA train our volunteer Trailhead Ambassadors and show them our appreciation with water, snacks, and an annual volunteer celebration in the fall.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

TRTA Trailhead Ambassador Support to Protect Tahoe's Watershed embodies TRF's priority of Stewardship and Environmental Awareness. Grant funding would develop the TRTA's Trailhead Ambassador program and provide a free resource to recreators so that they can clean up dog waste wherever they go. The Tahoe Rim Trail traverses the high mountain peaks all around Lake Tahoe, and NPS pollutants can travel from the trail into the watershed. The only outlet from the lake is the Truckee River. This literal and figurative cascade of events explains how dog waste along the TRT and throughout Tahoe can affect the drinking water being treated in Reno-Sparks. Educating recreators about this process while empowering them to intervene will help the Truckee Meadows Water Authority protect its sources of drinking water.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

Map.pdf
The TRTA has a volunteer agreement with the United States Forest Service and Nevada State Parks, and no permits are needed to complete this project.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

There are no known or foreseeable zoning, land use, or development plans that may affect this project.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

The Trailhead Ambassador program at the TRTA is an annually recurring program supported by unrestricted funds from membership fees and donations, as well as by grant funding that fluctuates from year to year but has recently come from the Caesars Foundation and the El Dorado Community Foundation. Support from TRF to purchase waste bag dispensers with a leash attachment will be a one-time project within the Trailhead Ambassador program and will not require any additional funding.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Anthony Porter, Communications Director at the Tahoe Rim Trail Association, will be responsible for recruiting, training, and organizing Trailhead Ambassadors. As the principal staff member managing this project, he will oversee and track the distribution of waste bag dispensers and gather data on user feedback.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

One part time staff will be involved with this project.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

Thirty volunteers will be involved with this project and they will contribute an estimated 100 hours of volunteer service.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

This project will take place from April 1, 2024, when volunteer recruitment will be at its peak and we must place the order for waste bag dispensers, to approximately September 30, 2024, when our Trailhead Ambassador program will likely come to an end for the season. Milestones of the project will include:

- April 1st: the last day to order dispensers in order to have them at the training event
- May 18th and 19th: volunteer training event
- Late May through late August: trailhead ambassadors perform outreach and education at trailheads
- Late September: an annual volunteer celebration marks the end of the trail season

Delays could be encountered during the manufacturing and shipping of the dispensers or could be caused by weather. Luckily, the Trailhead Ambassador program recurs every year, and any dispensers not distributed in the summer of 2024 can be used in the future.

12.) What factors will indicate a successful project?*

There are both quantifiable and qualitative indicators of success for this project. Quantifiable factors include:

- Purchasing 1,000 dog waste bag dispensers with leash attachments
- Purchasing 1,000 rolls of bio-based waste bags
- Recruiting and training 30 Trailhead Ambassadors
- Providing 100 hours of sustainable recreation education
- Provide 1,000 waste bag dispensers to recreators (with a roll of bio-based bags included)

Qualitative factors will be the positive interactions between TRTA Trailhead Ambassadors and trail users around the Lake Tahoe Basin. Our project will be successful if trail users feel educated on the harmful effects of dog waste on the watershed and empowered to intervene by picking up after their pets.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

Secured grant funding from the El Dorado Community Foundation will cover the vehicle expenses for this project as well as provide a match to TRF funds used for staff time and volunteer support (see attached budget for greater detail). Additional volunteer support will be provided by the Caesar's Foundation, pending a grant award that the TRTA was invited to apply for.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$8,678.00

Cash
$5,498.00

For the cash portion, is the funding already being held by the applicant for this project?
Yes

In-kind
***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$3,180.00

Description of matching funds/in- kind donations.*
In-kind matching funds are calculated based on an estimated 100 hours of volunteer service at the current national rate of $31.80 an hour. The $5,498 cash match is based on grant support from the El Dorado Community Foundation and an anticipated grant from the Caesars Foundation. If the TRTA does not receive the Caesars Foundation grant, we will be able to support the project with unrestricted funds from membership fees and donations.

Attachments

Nonprofits must submit:
- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

Nonprofit documents.pdf

Governmental entities must submit:
- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

Budget.pdf

TRTA Trailhead Ambassadors hard at work under some bluebird skies

Online Quote

(click image to zoom)

Quote ID:	290513
Name:	Brooke Clayton
Company:	Tahoe Rim Trail Association
Quote Date:	Wednesday, January 24, 2024
Item:	VX4068 -Dog Poop Bag Holder For Leash Attachment
Description:	Perfect Size + Easy Attachment - Stores 2 rolls of standard dog bags for poop. Also stores cash, set of keys, or even dog treats for added convenience. Quick and simple to attach. Quick Poop Bags Acces: This lightweight dog poop bag dispenser easily secures flat to any dog leash or retractable leash with the durable elastic band. Save time and hassle by simply pulling your next doggie poop bag from the this poop bags holder right now when you need it. No more searching around for pet waste bags while walks outside in your daily life.
Item Color:	Black
Item Size / Option:	
Due Date:	4/30/2024 - This date is: **Flexible** **IN ORDER TO MEET YOUR REQUESTED IN-HANDS DATE, YOU MUST HAVE YOUR ORDER SUBMITTED AND PROOF APPROVED BY 4/1/2024**
Shipping Zip:	89449
Production Time:	13-15 days
Transit Time:	7 days
Additional Info:	
Customized?:	Yes
Uploaded File:	TRTAlogo-main-bigbestquality.png Need to upload a new or different file? Click here
Imprint Method:	Heat transfer
Color Count:	2
Imprint Colors:	blue white Want to change your imprint colors? Click Here
Font:	
Text:	

Quote Breakdown:

Item	Description	Quantity	Unit Price	Sub Total
VX4068	Dog Poop Bag Holder For Leash Attachment	1000	$2.51	$2,510.00
SETUP	Setup Charge for 2 color, one location imprint	1	$100.00	$100.00
RUNNING	Running Charge	1000	$0.00	$0.00
SHIPPING	Air shipping is FREE - Includes customs, duties and door to door delivery	1	$0.00	$0.00
NOTES		1	$0.00	$0.00

ADD TO CART

Due to variable product demands; inventory, pricing and firm delivery dates cannot be guaranteed.

Quote Total: $2,610.00

******This quote is valid until Friday, February 23, 2024
Prices and availability are subject to change at anytime. Items such as flash drives are especially subject to such price changes.

Roll over image to zoom in

7 VIDEOS

PET N PET Dog Poop Bag USDA Certified 38% Biobased Poop Bags 1080 Counts 60 Rolls 9x13 Inches Dog Bags for Poop

Visit the PET N PET Store

4.7 40,976 ratings

2K+ bought in past month

List Price: ~~$24.99~~ Details

Price: $21.99 ($0.02 / Count) Get **Fast, Free Shipping** with Amazon Prime FREE Returns

You Save: $3.00 (12%)

Get $50 off instantly: Pay $0.00 ~~$21.99~~ upon approval for Amazon Visa. No annual fee.

Color: **Black**

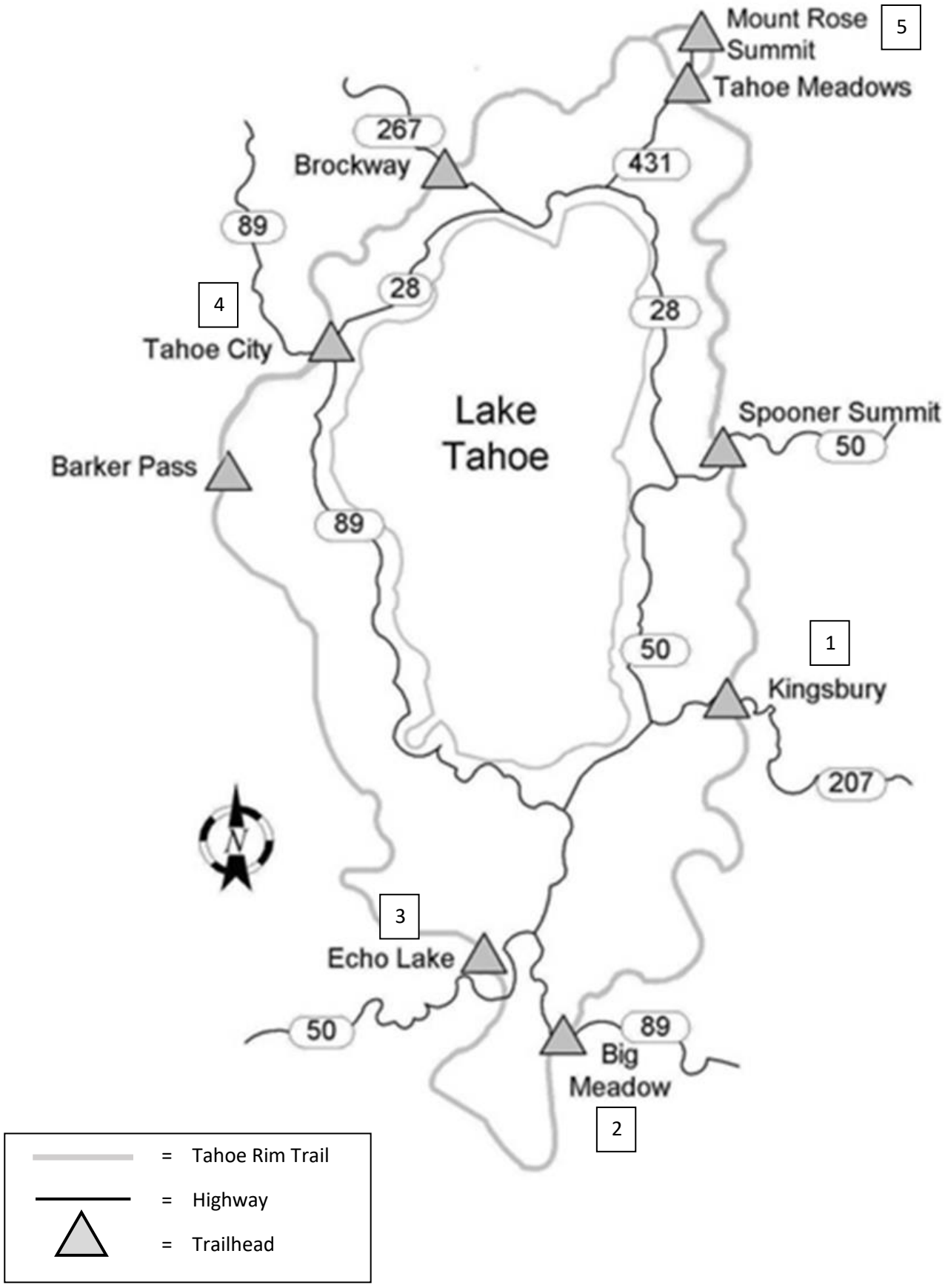
Brand	PET N PET
Capacity	3 Kilograms
Unit Count	1080.0 Count
Recommended Uses For Product	pet waste bag
Color	Black

See more

About this item

- SUPER VALUE PACK: Great price (0.02/Count) for PET N PET 1080 counts dog waste bags (60 rolls, 18 bags per roll), a value pack can provide more than 1 year.
- ENVIRONMENT MATTERS: PET N PET 38% Biobased dog poop bags

Photos from the Tahoe Rim Trail Associations annual volunteer celebration in 2023


Mount Rose Summit
5
Tahoe Meadows
267
Brockway
431
89
28
28
4
Tahoe City
Lake Tahoe
Spooner Summit
50
Barker Pass
89
50
1
Kingsbury
207
N
3
Echo Lake
50
89
Big Meadow
2
= Tahoe Rim Trail
= Highway
= Trailhead

TRTA Trailhead Ambassador Support to Protect Tahoe's Watershed			
Expense	Overall cost	TRF Request	Match*
Labor			
Staff time: wages for the TRTA's Communications Director and Outreach Coordinator to recruit, organize, and support trailhead ambassadors	$2,000.00	$1,000.00	$1,000.00
Volunteer time: an estimated 100 hours of trailhead ambassador support (at the current national rate of $31.80/hour)	$3,180.00	$0.00	$3,180.00
Volunteer Support			
Training: including Tahoe Naturalist, Leave No Trace, Risk Management, and Volunteer Procedures	$1,500.00	$500.00	$1,000.00
Appreciation: including water, snacks, and an annual volunteer celebration	$3,000.00	$500.00	$2,500.00
Travel: transportation of volunteers and outreach supplies using TRTA vehicles	$200.00	$0.00	$200.00
Waste Management Materials			
Waste bag dispensers with leash attachment (1,000 @ $2.51 + $100 fee for imprint)	$2,610.00	$2,610.00	$0.00
Compostable waste bags (17 boxes of 60 rolls @ $21.99/box)	$373.83	$373.83	$0.00
Other			
Administrative costs (10% of total)	$1,286.38	$488.38	$798.00
Total Project Costs	**$14,150.21**	**$5,472.21**	**$8,678.00**
	Total	**TRF Request**	**Match***

*Matching funds will be provided by the TRTA's unrestricted funds, in-kind volunteer support, a secured grant from the El Dorado Community Foundation, and an anticipated grant from the Caesar's Foundation

TRF #287 River Stewards

Truckee River Fund- Spring 2024

The Reno Initiative for Shelter and Equality

Benjamin Castro
2095 Arcane Ave.
Reno, NV 89503
O: 775-412-8325

Benjamin Castro

2095 Arcane Ave.
Reno, NV 89503
ben@renoinitiative.org
O: 775-412-8325

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
The Reno Initiative for Shelter and Equality

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

45-5617917

Director of Organization*
Benjamin Castro

Project Contact Name*
Benjamin Castro

Project Contact Postion/Title*
Executive Director

Project Contact Email*
ben@renoinitiative.org

Project Contact Phone Number*
7754128325

Organization Mission*
Our initiative is to cultivate a greater sense of dignity and humility by providing equal access to shelter, knowledge, and opportunity. We seek to create a stronger community through the use of shared resources and mutual aid.

Project Information

Project Title*
Name of Project.

TRF #287 River Stewards

Amount Requested*
$226,503.20

Project Start Date*
04/01/2024

Project End Date*
03/31/2025

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

The funding will be used to hire one Program Manager and 6 Part-Time Contractors to decrease pollution in the areas within 100 feet on either side of the Truckee River. Expenses will include salaries, fringe benefits, and program supplies.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*
No

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*
No

If yes, please include the following information for all previously funded projects:
- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*
Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

C.)
E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

A Source Water Protection Area (SWPA) is a locally established management area surrounding a surface water or ground water resource that supplies water for public consumption. An SWPA provides a buffer around the Truckee River, as well as perennial tributaries. This buffer zone will be impacted by this project.

Specific goals:
1.) To decrease pollution in the areas within 100 feet on either side of the Truckee River by significantly reducing the amount of trash in these areas;
2.) To reduce pollutants that end up in the river from non-point source pollution as a result of keeping the SWPA cleared of trash and biohazards;
3.) To improve the aesthetic value and potential for increased recreational use by the public, including hiking, bicycling, fishing and other water sports by enhancing the appearance of the Truckee River Watershed, including the public parks and trails in the area; and
4.) To provide employment opportunities for our unsheltered neighbors.

Measurable outcomes:
1.) Track and record the number of bags of trash collected from the SWPA;
2.) Record the number of staff employed by this project, including the number of unsheltered individuals.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

Reno-Tahoe Truckee River Trail with specific focus on encampments identified by the Reno Clean and Safe Team and other Outreach Service Providers.

3.) Project Description*

The River Stewards Project Description.pdf
See Attached

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

The River Stewards Project fits the TRF priority category Stewardship and Environmental Awareness by supporting a cleanup program and offering community education directly connected to preserving and protecting the local environment and enhancing water quality.

The project will also contribute to improving the local watershed by decreasing the total maximum daily load (TMDL) through the reduction of non-point source pollution in and around the Truckee River. The project's work will occur in upstream urban areas that are close to TMWAA's water treatment facility.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

No Permits Necessary.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

N/A

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

RISE currently contracts with the City of Reno's Clean and Safe Team to provide outreach services to our unsheltered neighbors and with One Truckee River to provide janitorial services to the Portland Loos located at both Brodhead Park and John Champion Park. Once the viability of the River Stewards Project has been fortified, the partners previously mentioned are potential sources of funding to continue the project's maintenance.

8.) Identify the principals involved in leading or coordinating the project or activity.*

The project will require one Program Manager who will report directly to the Executive Director. The Program Manager will recruit, train, and direct six part-time River Stewards. The Program Manager will also work closely with the RISE Outreach Team to provide peer support services to the River Stewards recruits and broker resources to increase the likelihood of stable income and permanent housing.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

One Full-Time Program Manager, 6 Part-time River Stewards, and four Part-Time Peer Support Specialists provided In-Kind by the RISE Outreach Team.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

This project will not be reliant on volunteers.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

April 1, 2024 – March 31, 2025

12.) What factors will indicate a successful project?*

Factors indicating the success of River Stewards include:
1.) A significant decrease in the amount of trash in public areas within 100 feet on either side of the Truckee River;
2.) A significant drop in the number of pollutants in the local water supply as measured by TMWAA staff;
3.) Evidence of a change in the attitude of residents and visitors toward protecting the Truckee River and its surrounding area. If people routinely experience a clean and well-maintained area, they are more likely to act more responsibly and to value a clean and safe environment.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

RISE currently has partner relationships with several government agencies and community-based non-profit organizations, including: Washoe County Human Services Agency, which contracts with RISE to manage and operate OUR Place Shelter for women and families; One Truckee River (OTR), the non-profit organization involved with the original River Stewards project and partners with RISE to maintain the public restrooms along the Truckee River; Keep Truckee Meadows Beautiful (KTMB), the non-profit organization that organizes community cleanup events along the river and throughout the area, utilizing hundreds of community volunteers; and the City of Reno, which contracts with RISE for the management and operation of a city-wide outreach program that offers a variety of services to individuals living unsheltered.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*
$57,408.00

Cash
[Unanswered]

For the cash portion, is the funding already being held by the applicant for this project?
Yes

In-kind
***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$57,408.00

Description of matching funds/in- kind donations.*
RISE will provide 1.2 FTE Peer Support Specialists to work directly with the River Stewards recruits to broker public resources and increase the likelihood of stable income and permanent housing.

Attachments

Nonprofits must submit:
- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

River Stewards Attachments-compressed.pdf

Governmental entities must submit:
- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

River Stewards Budget.xlsx

The River Stewards Project seeks to build upon a similar project that was successful in significantly reducing the amount of trash in the Truckee River watershed as well as the river itself. The presence of trash along the riverbanks poses a serious threat to water quality, and a threat to the health of the entire community. The proposed project site includes an upstream urban area, which is also located in close proximity to the TMWAA Water Treatment Plant.

The River Stewards Project will consist of ongoing trash removal, including removal of animal and biohazard waste, in areas along the Truckee River that are beautifully landscaped and designed for recreational use. Current and formerly unsheltered individuals will be hired on a contract basis at a livable wage as cleanup crew members. Crew members will receive comprehensive training by the Program Manager and other staff. The training will include instruction in community outreach to unsheltered individuals, consistent with the RISE organizational mission.

River Stewards crew members will:

1.) Participate in daily trash cleanup and occasional plantings;

2.) Assist in outreach efforts and provide support to unsheltered individuals in the area;

3.) Help to educate all river users about the importance of protecting the Truckee River and its surrounding areas.

The annual Point In Time Count, required by the U.S. Department of Housing and Urban Development (HUD), is conducted every year on one day in late January for the purpose of tracking the total number and identifying characteristics of individuals experiencing homelessness in cities throughout the U.S. According to the 2023 Point In Time Count conducted on January 26th, a total of 1690 homeless individuals were counted in Washoe County. This included 329 people living unsheltered (sleeping in tents, cars, on the street, or in makeshift shelters). The River Stewards project will offer opportunities for some to earn an income while working in a supportive environment and performing an invaluable service to our community.

The project will provide multiple benefits to the community, including the creation of a more desirable outdoor environment for the public to enjoy. While many areas along the Truckee River have aesthetic value, the potential for recreational use has not been fully realized. The Truckee River Path, a scenic hiking/walking trail, includes more than six public parks in the city of Reno alone, and offers access to the Tahoe-Pyramid Trail, a popular bicycle thoroughfare, as well as access points for fishing, kayaking and other water sports. Keeping these areas free of trash offers multiple environmental, health and safety benefits to the entire community.

We believe that when community members observe intensive cleanup efforts along the river, they will likely be inspired to be mindful of the area's natural beauty, and motivated to reduce their ecological footprint. This conservation mindset will help protect the river for all of us, as well as for future generations.

Detailed Proposed Budget
Category
1. Salaries
Salaries Subtotal
2. Fringe
Fringe Subtotal
3. Contractual
Contractual Subtotal
4. Supplies and Equipment
Supplies and Equipment Subtotal
5. Administrative
Administrative subtotal
Total Cost

River Stewards

April 1, 2024 - March 31, 2025

Details of Expected Expenses	FTE	Hourly
Program Manager	1.0	$ 30.00
Peer Support Specialist - In-Kind Service Provided by RISE Outreach	**1.2**	**$ 23.00**
Fringe benefits @ 16%		
Contracted River Stewards	3.0	$ 20.00
Insurance - Liability		
Insurance - Workman's Comp		
Trash Bags and Gloves		
Administrative Costs @10%		

Project Duration	Total
$ 62,400.00	
$ 57,408.00	
	$ 62,400.00
$ 9,984.00	
	$ 9,984.00
$ 124,800.00	
$ 3,600.00	
$ 3,360.00	
	$ 131,760.00
$ 1,768.00	
	$ 1,768.00
	$ 20,591.20
	$ 226,503.20

TRF #288 Youth Watershed Education and Protection Projects

Truckee River Fund- Spring 2024

Great Basin Outdoor School

Sue Jacox
1000 Bible Way #53
Reno, NV 89502
O: 775-324-0936

Derik Knak

1000 Bible Way #53
Reno, NV 89502
development@greatbasin-os.org
O: 530-949-4975

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Great Basin Outdoor School

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

88-0396516

Director of Organization*
Emily Baldwin

Project Contact Name*
Derik Knak

Project Contact Postion/Title*
Development Coordinator/Lead Naturalist

Project Contact Email*
development@greatbasin-os.org

Project Contact Phone Number*
(530) 949-4975

Organization Mission*
To ignite children's passion for learning and foster cooperation, respect, and responsibility through hands-on discovery in the outdoor classroom.

Project Information

Project Title*
Name of Project.

TRF #288 Youth Watershed Education and Protection Projects

Amount Requested*
$9,279.60

Project Start Date*
03/19/2024

Project End Date*
07/26/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

Funding from the Truckee River Fund will support organizing Tahoe Truckee Snapshot Day event with a Reno-Sparks school and advancing critical watershed education to elementary-aged students at Spring & Summer Adventure Day Camps, encompassing eight weeks of programs.

This project is on:*
Check all that apply

Public land
Private land

Are government permits or decision documents needed for the project?*
No

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

No

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*
Yes

If yes, please include the following information for all previously funded projects:
- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

March 2023, TRF #270, "Youth Watershed Education and Protection Projects," $10,411.00
July 2021, TRF #249, "Lower Truckee Snapshot Day, Spring & Summer Day Camp Watershed Education Initiative," $11,896.06

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*
Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

With funding support from the Truckee River Fund, Great Basin Outdoor School will enlist volunteers to host water sampling and activities with a local area school as a part of the Lake Tahoe-Truckee River Snapshot Day consortium. For years, the organization has participated in Snapshot Day, contributing stream-water data and water-sampling results while bringing the citizen science opportunity to school groups. Snapshot Day events held by Great Basin Outdoor School support the organization's focus on delivering hands-on education in pristine, outdoor sites, even on school campuses. The organization will recruit Academy of Arts, Careers, and Technology (AACT) environmental science high school students and current volunteers to assist in planning and ensuring proper safety outcomes at the event. Great Basin Outdoor School will host one sampling site and reach a total of 40 Mountain View Montessori School students through Snapshot Day participation. After sampling and recording, the organization will submit collected data to be incorporated into the Tahoe Truckee Snapshot Day Annual Report.

In addition, support from the Truckee River Fund will contribute to delivering watershed education as emphasized in Great Basin Outdoor School's Spring and Summer Adventure Day Camps. The watershed component of Great Basin Outdoor School's curriculum promotes hands-on, standards-based learning in aquatic science by incorporating demonstrations, guest presentations, and stewardship projects. To further this goal, the organization will reach about 240 students across Spring and Summer Adventure Day Camps. Each student will be engaged for 25 hours per week of outdoor contact time at the River School Farm and nearby trails for a total of 6,000 program contact hours. Learning outcomes based on curricular expectations will be tracked by pre- and post-survey assessments to be administered by naturalist educators. Education directorial staff will track overall program assessment data and include results in Truckee River Fund grant reporting with at least 75% of students showing a knowledge gain and identifying point or non-point sources and two ways to protect their watershed.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

The Tahoe Truckee Snapshot Day water sampling event hosted by Great Basin Outdoor School will be held on the campus of Mountain View Montessori School, where the organization will station staff and volunteers for water sampling and testing activities. The site chosen for the event is adjacent to Whites Creek, a major tributary and component of the Truckee River watershed, according to surface water data collected by the Environmental Protection Agency Office of Water's Watershed Assessment, Tracking & Environmental Results System (WATERS). Priority sampling points will be determined based on downstream locations and areas of mixed-development land use to highlight anthropogenic causes of inadequate water quality and means of improvement.

Spring and summer programs emphasizing watershed education and protection will occur at the River School Farm and Mayberry Park, both located in Reno. Both sites provide direct access to the Truckee River

streambank and offer convenient locations for the delivery of watershed education incorporated into the day camp program curriculum.

3.) Project Description*

GBOS 2024 TRF Map, Photos, Letter of Support.pdf
Since 1998, Great Basin Outdoor School engaged thousands of students through hands-on, experiential learning in the outdoor classroom as an alternative to the sedentary conditions of traditional classroom pedagogy. While most of the organization's programs are held in pristine outdoor sites across northern Nevada, Great Basin Outdoor School reaches schoolchildren through special events, such as Tahoe Truckee Snapshot Day. Tahoe Truckee Snapshot Day is a once-a-year opportunity for the organization to host and deliver water education to a local school group. Great Basin Outdoor School is planning to host this year's event with Mountain View Montessori School, a PreK-8 school located adjacent to Whites Creek in southwest Reno, and exhibiting sustainable practices on campus, including greenhouse and compost programs. Whites Creek is a second-order tributary of the Truckee River that originates in the Mount Rose Wilderness Area and drains into Steamboat Creek in south Reno, passing through extensive residential and commercial developments in its 11-mile length. During the event, naturalist educators and volunteers will lead water sampling tests and activities related to hydrological themes, including dip netting for macroinvertebrates in Whites Creek.

During school breaks, Great Basin Outdoor School hosts week-long day camp programs at Reno's River School Farm to provide an active, educational environment and combat learning loss while school is not in session. The River School Farm is a sustainable farm and interpretive garden located near Mayberry Park on the Truckee River, providing easy access to the streambank for water ecology lessons and demonstrations. Naturalist educators will deliver content and lead students through engaging activities and lessons that pertain to critical water education and the Truckee River watershed. The organization will utilize the Project Water Education Today (WET) curriculum to inform lessons and activities for elementary-aged students. Great Basin Outdoor School will collaborate with the City of Reno's Utility Services Department to feature guest presenters specializing in stormwater management and pollution. Students will use aquatic dip nets to discover benthic macroinvertebrates in the Truckee River. Benthic macro invertebrates or benthos are bottom-dwelling animals that can be seen without a microscope and are bioindicators of aquatic conditions. Naturalists will lead students in stewardship projects by cleaning up trash near the streambank of the Truckee River and auditing collected litter. By constructing watershed models from tarps, students will visualize the topographic direction of watersheds and the flow of water. Students will learn about the Truckee River watershed and gain a sense of place as future stewards and stakeholders of this critical natural resource, while indicating knowledge gain of both point and non-point source pollution and practical ways to protect the Truckee River watershed.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

The project requesting support is aligned with the Truckee River Fund's grant priority promoting sustainability and environmental awareness. Funding support from Truckee River Fund will allow Great Basin Outdoor School to organize community service efforts and host participants for water sampling and data collection activities as stakeholders of Tahoe Truckee Snapshot Day taking place in May 2024. Participating in Tahoe Truckee Snapshot Day as a host organization will advance citizen science opportunities for students and educators, in addition to monitoring the ecological health of the Truckee River watershed. Students will learn relevant topics in watershed management and stewardship, realize their roles as stewards and future stakeholders, and apply these lessons toward sustainable decisions and choices. Furthermore, participation will allow Great Basin Outdoor School to leverage community support toward water

conservancy and quality improvement efforts as it applies to the consortium's findings and recommendations.

Support will be applied to implementing water education and protection projects during spring and summer school break day camps. Both camps incorporate activities and deliverable content promoted by the initiative, including aquatic science demonstrations, field studies, and guest presentations exploring hydrology and water management. Students will demonstrate knowledge gain of point and non-point source pollution in bodies of water and the impact of pollution affecting the Truckee River watershed. Additionally, students will learn about the physical geography and flow of water by constructing watershed models with topographic features. By participating in activities led by naturalist educators, including aquatic science demonstrations and trash clean-ups along the Truckee River streambank in Mayberry Park, students will become active learners and problem solvers of critical ecological issues and their practical solutions. Lessons gained from the school break day camp experience will influence future stewardship behaviors and lifestyles. These educational opportunities will yield a greater understanding of human-caused alterations to watersheds and issues faced by the regional hydrosphere.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

All activities to be implemented during Tahoe Truckee Snapshot Day and school break day camps will not require local or federal permitting.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

There are no foreseeable zoning, land use, or development plans that would impact the implementation of the Tahoe Truckee Snapshot Day or the delivery of watershed education and protection projects during school break day camps.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

All activities and programs requesting support from Truckee River Fund will be held on a recurring annual basis with funding support from the Nevada State Parks – Recreational Trails Program and Nevada Division of Environmental Protection. There are no future phases associated with the project requesting support to be anticipated for Tahoe Truckee Snapshot Day event or delivery of watershed education that will occur during spring and summer school break day camps in the current year, 2024. Great Basin Outdoor School will incorporate watershed education and protection projects in year-round programming.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Great Basin Outdoor School Development Coordinator and Lead Naturalist, Derik Knak, will be responsible for leading and coordinating the 2024 Tahoe Truckee Snapshot Day event with assistance from board president, Sue Jacox and City of Sparks environmental control supervisor, Cody McDougall. The project

principal will be responsible for recruiting and managing volunteers to assist in hosting the water sampling event, in addition to coordinating with Washoe County School District and Mountain View Montessori School staff.

Great Basin Outdoor School Executive Director Emily Baldwin will be responsible for leading educator staff training and managing school break day camps. Emily brings two years of experience teaching and managing the organization's educational programs, and participates in the Community Foundation of Northern Nevada's Nonprofit Leadership Academy to manage learning expectations and meet grant deliverables.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

One full-time program facilitator and two part-time seasonal naturalist educators to host Tahoe Truckee Snapshot Day. Delivery of watershed education at school break camps will involve one full-time director and three full-time seasonal educators.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

Snapshot Day event will recruit ten volunteers at various sampling sites for 20 volunteer hours. School break day camps will recruit one water-themed guest presenter each week for eight weeks for 40 hours. Low-end total estimate of 60 hours.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

March 2024: Volunteer recruitment and coordination
March 19-21 2024: Spring Adventure Day Camp training encompassing watershed instruction
March 25-29, April 1-5, 2024: Spring Adventure Day Camp
April TBD 2024: Instrument calibration and personnel trainings for Tahoe Truckee Snapshot Day
April TBD 2024: Site leader and stakeholder trainings for Tahoe Truckee Snapshot Day
May 17, 2024: Tahoe Truckee Snapshot Day event at Mountain View Montessori School
June 3-7, 2024: Summer Adventure Day Camp trainings encompassing watershed education and protection projects
June 10-14, 17-21, 24-28, July 8-12, 15-19, 22-26, 2024: Summer Adventure Day Camp

12.) What factors will indicate a successful project?*

Great Basin Outdoor School will determine overall project success through its experience as an educational non-profit organization emphasizing hands-on, real-world learning and involvement in both Tahoe Truckee Snapshot Day and delivery of watershed education in school break camps. The organization participated in the 2021 and 2023 Tahoe Truckee Snapshot Day events and seeks to continue engaging school groups in

Reno-Sparks to partake in the annual citizen science opportunity. These events rely on volunteer recruitment and coordination to promote a safe learning environment. In addition, Great Basin Outdoor School hosted 198 students during spring and summer break day camps in 2023, with an anticipated reach of about 240 students for spring and summer day camp programs. Students will indicate knowledge gain of watershed education concepts and topics by completing pre- and post-program assessments administered by naturalist educators and tracked by educational leadership staff. The indispensable benefits of immersive outdoor learning will be reflected by the stewardship principles and behaviors that participants will apply in their lives after the program.

The principal staff member acting as the project facilitator, Derik Knak, is experienced in planning and hosting events with school groups including the 2023 Tahoe Truckee Snapshot Day event with two Mountain View Montessori School fifth-grade classes, in addition to qualitative water data collection and education. He will undergo calibration and personnel training hosted by the City of Sparks Environmental Control Section to successfully perform a variety of qualitative water tests and coordinate with other event stakeholders.

Since its incorporation in 1998 as northern Nevada's inaugural non-profit organization emphasizing outdoor education, Great Basin Outdoor School delivers high-quality watershed education and instruction through its programs in the Reno-Tahoe area. To maintain this distinction, the organization employs naturalist educators with extensive backgrounds in the natural or ecological sciences to deliver instructional content.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

The dual initiatives requesting support will both occur within the Truckee River watershed. Great Basin Outdoor School seeks to join the Tahoe Truckee Snapshot Day consortium, in turn promoting the event's mission to provide real-time qualitative data on the Truckee River's ecological health and amplifying the initiative to local students. The organization is proud to include school groups in past and future Snapshot Day events. Other stakeholders of the Tahoe Truckee Snapshot Day consortium include the Truckee River Watershed Council, Tahoe Regional Planning Agency, Nevada Division of Environmental Protection, and the Pyramid Lake Paiute Tribe.

Great Basin Outdoor School will feature guest presenters with varied or esteemed backgrounds in water education and management to volunteer during spring and summer break day camps. The organization will coordinate with Keep Truckee Meadows Beautiful, City of Reno Utility Services Department, and Nevada System of Higher Education faculty to schedule presentations emphasizing hydrology and watershed management. Educational programs are coordinated with long-standing partners of the organization, including the River School Farm to host students for school break day camps and introduce opportunities for volunteer stewardship and immersive learning experiences. School break day camps will directly benefit from the site location adjacent to the Truckee River streambank in Mayberry Park. The organization requests and receives funding support from the Nevada State Parks – Recreational Trails Program and Nevada Division of Environmental Protection towards its school break day camp programs.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$7,159.50

Cash

$7,159.50

For the cash portion, is the funding already being held by the applicant for this project?

No

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$0.00

Description of matching funds/in- kind donations.*

Great Basin Outdoor School will match funds through costs of labor covered by the organization's enrollment fees collected during year-round programs.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

GBOS 2024 TRF Financial Attachments.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

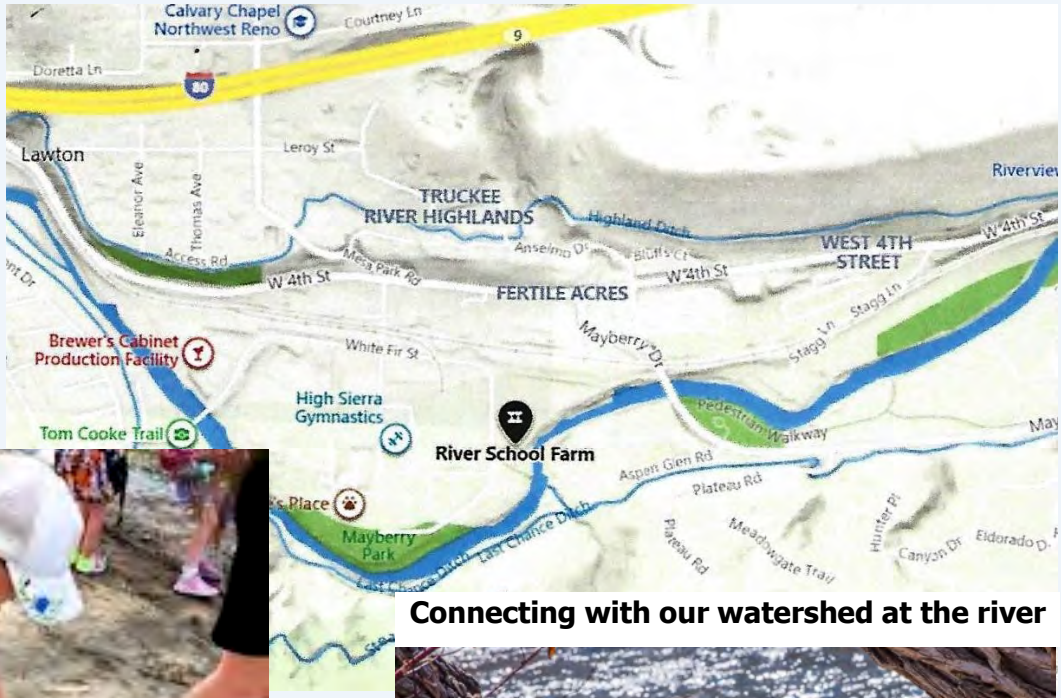
*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

GBOS 2024 TRF Budget.pdf

DAY PROGRAM STUDY SITES: River School Farm & Galena Creek

Great Basin Outdoor School
greatbasin-os.org



Summer day camp students collect litter along the Truckee River.

Connecting with our watershed at the river

Students from a very low-income Sparks school collect and identify aquatic macroinvertebrates for bioassessment of water quality in Marilyn's Pond at Galena Creek.

Great Basin Outdoor School
"Youth Watershed Education & Protection Projects"
Truckee River Fund Proposal 2024
Snapshot Day & Spring & Summer Break Day Camp on the Truckee River and tributaries

Students learn about our Truckee River watershed and protecting it at Snapshot Day and during spring and summer day camp on the Truckee River and tributaries.

UNR's Dr. Zeb Hogan of "Monster Fish" fame discusses aquatic habitats.

Students collect litter and learn from guest presenters and from our educators.

RIVER
SCHOOL FARM

August 24, 2023

To whom it may concern

For the past few years, the Great Basin Outdoor School has held summer, autumn and winter camps here at the River School Farm. During that time, we observed a caring and knowledgeable staff work with the children who attended the camps. We always enjoyed the professional way the programs have been administered.

The River School Farm is an ideal location for teaching about our natural environment. Our farming operation includes a composting facility, farm animals, fruit trees, grape vines, herbs, a productive worm bed, and vegetables. Our location along the Truckee River provides opportunities to learn about our water shed, riparian vegetation, and river wildlife. Our facilities include many sustainable elements including both PV and solar thermal, using recycled materials, and collecting rainwater. Our grounds include a wide range of flowering plants that provide native and honeybee pollinators nectar and pollen.

GBOS and River School Farm have been strong partners. We look forward to many more years of providing a quality program for children in a beautiful place.

We think this would be an excellent venue to introduce low-income children to the wonders of nature.

Best regards,

I. Stille

Tom and Iris Stille
Owner of River School Farm



Great Basin Outdoor School

"Hands-on Discovery in the Outdoor Classroom"

Great Basin Outdoor School Board of Directors

SUE JACOX, President
Washoe County School District Educator, retired
775-250-1894
suejacox@nvbell.net

CALEB S. JENSEN, CPA, Treasurer
Certified Public Accountant
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caleb@pangborncpa.com

LEILANI KONYSHEV
Washoe County School District Educator
907-242-3111
Leilani.konyshev@washoeschools.com

PATTY MOEN
Environmental Scientist
775-849-8252
Pattymoen32@gmail.com

Project Budget:

"Youth Watershed Education and Protection Projects"

Truckee River Fund, February 2024

Budget Narrative: The Truckee River Fund would support educator hours for Great Basin Outdoor School's role in Snapshot Day in May, an annual water quality event, in which citizen scientists learn about our watershed through hands-on sampling and testing. Data collected informs restoration and water protection projects.

We also seek teaching staff support for our watershed education and projects for local youth along the Truckee River and at Galena Creek during spring and summer 2024. Match for educator time will come from other grants which have already been secured and from student program fees.

Budget Item Description	Calculation	Amount Requested from TRF	Match	Total
Truckee River Snapshot Day Labor Costs: educator hours spent planning, preparing, training, hosting, and wrapping up.	Lead Naturalist $170/day x 6 days for prep, event, and wrap-up 2 Naturalists $130/day x half-day event	**$1,020.00** **$130.00**		**$1,020.00** **$130.00**
25% of Educator Labor Costs for School Break Spring and Summer Day Camps on the Truckee River for Watershed Education & Projects	Director $200/day x 40 days x 25% + Lead Naturalist $170/day x 40 half-days x 25% + 3 Naturalists 120/day x 40 days x 25%	**$2,000.00** **$850.00** **$3,600.00**	**$2,000.00** **$850.00** **$3,600.00**	**$4,000.00** **$1,700.00** **$7,200.00**
Educator Labor Total		**$7,600.00**	**$6,450.00**	**$14,050.00**
Fringe	11% for FICA, UI, Workers Comp, etc.	**$836.00**	**$709.50**	**$1,545.50**
Subtotal		**$8,436.00**	**$7,159.50**	**$15,595.50**
Indirect Expenses	10% x subtotal	**$843.60**		**$1,559.55**
TOTAL		**$9,279.60**	**$7,159.50**	**$17,155.05**

Great Basin Outdoor School, 1000 Bible Way #53, Reno, Nevada 89502, suejacox@nvbell.net, 775-849-1890

TRF #289 Lower Truckee Trout Habitat Project

Truckee River Fund- Spring 2024

Trout Unlimited

Jessica Strickland
15695 Donner Pass Road
Suite 100
Truckee, CA 96161

O: 530-333-5125

Dan Johnson

15695 Donner Pass Road
Suite 100
Truckee, CA 96161

dan.johnson@tu.org
O: 530-333-5125

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Trout Unlimited

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

38-1612715

Director of Organization*
Jessica Strickland

Project Contact Name*
Dan Johnson

Project Contact Postion/Title*
Desert Terminal Lakes Coordinator

Project Contact Email*
dan.johnson@tu.org

Project Contact Phone Number*
530-333-5125

Organization Mission*
Trout Unlimited's mission is to bring together diverse interests to care for and recover rivers and streams so our children can experience the joy of wild and native trout and salmon.

Project Information

Project Title*
Name of Project.

TRF #289 Lower Truckee Trout Habitat Project

Amount Requested*
$49,477.47

Project Start Date*
07/01/2024

Project End Date*
12/01/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

implement construction of in-stream restoration at Crystal Peak Park in Verdi, NV.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*
Yes

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

No

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*
No

If yes, please include the following information for all previously funded projects:
- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*
Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

A.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

Goals

Restore and enhance degraded reaches of the Truckee River in Nevada to increase wild and native fish habitat and improve angling opportunities.

Boost community involvement and ownership of the Truckee River through on-the ground events and projects that involve our membership and partners.

Continue to develop partnerships between TU, state agencies, and non-profit organizations in creating a legacy of scientifically-sound aquatic habitat enhancement projects.

Improve knowledge of the condition of the Truckee River by contributing monitoring data to shared databases.

Objectives

Install at least 6 new in-stream habitat structures within the Truckee River urban corridor.

Collect data on baseline and post-construction conditions for project sites.

Two volunteer workdays that complement and advance the larger project.

Communicate to all stakeholders through multiple communications outlets (social media, blog posts, in-person and virtual presentations, etc.)

Host at least 2 formal meetings with land managers and agencies to collaboratively plan and implement the planning, permitting, construction, and monitoring phases of the project. Seek direct involvement in the project from stakeholders as opportunities present themselves.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

The project area is located within Crystal Peak Park in Verdi, NV. Specific site reach is downstream of the I80 bridge within the park.

Note: The scope of the overall project consists of two sites, Crystal Peak Park and Lockwood Park. These are both reflected in the design document, but funding from the grant is requested for implementation of Crystal Peak Park only.

3.) Project Description*

2023 Lkwd Crystal Proposal-combined-compressed_1.pdf

Trout Unlimited has a long history of successful restoration projects on the Truckee River. Our habitat projects on the Truckee have led to improved stream resilience, increased fish presence, greater macroinvertebrate populations, and the resurgence of critical native vegetation within the system. While most of our work has been on the California side of this iconic river system, we are pleased to announce our intentions to restore a beloved and heavily used fishing access area in Nevada.

The Lower Truckee Trout Habitat Project builds on the success of similar projects implemented by Trout Unlimited on the Truckee River. Using the same construction techniques as were used at Glenshire and Horner's Corner, TU is planning on installing several "j-hook" habitat structures at Crystal Peak Park in Verdi. This project will provide much needed aquatic habitat that benefits wild and native trout in an area that has seen severe historic human manipulation, and it will help to protect banks from erosive processes.

Please see attached designs and narrative for detailed description of design philosophy and implementation techniques.

Note: The scope of the overall project consists of two sites, Crystal Peak Park and Lockwood Park. These are both reflected in the design document, but funding from the grant is requested for implementation of Crystal Peak Park only.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

As with the entirety of the Truckee River, this site is listed as impaired under EPA 303(D). Crystal Peak is a heavily used access location for recreational angling, despite exhibiting degraded habitat conditions.

Increased temperature creates mortality in aquatic species by lowering the concentration of dissolved oxygen in the system. The proposed habitat features will create scour pools below the structure, increasing oxygenation and discouraging fine sediment deposition. In periods of low flow, this will serve to create cold water refugia for all aquatic species, increasing resilience throughout different flow regimes.

Most importantly, the rock vanes are designed to effectively shift the high-stress velocity gradients away from the bank and toward the center of the river channel. This serves to stabilize the bank and prevent excessive erosion below the vane. The design provides quality in-stream aquatic habitat and a cost-effective and low-maintenance bank stabilization approach when compared to other techniques such as placement of riprap and netting.

The Crystal Peak Park site is located upstream of both Chalk Bluff and Glendale TMWA water treatment plants. While not currently a section listed for turbidity impairments, the bank stabilization benefits of this project will prevent sediment input to downstream stretches including the two TMWA water treatment plants. With the project site located on public land within Washoe County parks, these efforts will increase the enjoyment of the area for anglers as well as the general public by increasing biodiversity and resilience of all wildlife that depend on the river. The increase of macroinvertebrates and fish will create more available food for birds and mammals, allowing the public more opportunities to engage with nature on this impacted stretch of the river.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

Trout Unlimited is currently in the process of obtaining all necessary permits for construction. A pre-application meeting with all regulatory stakeholders has been conducted, and permits are anticipated to be granted in time for the construction timeline of fall 2024.

Trout Unlimited has contracted with Matt Setty and NVENV to advance the permitting process. NVENV has a proven history of securing permits for multiple in stream projects on the Truckee River.

CWA Section 404 – Nationwide # 27: Aquatic Habitat Enhancement (USACE-Regulatory Branch)
The USACE will issue a Nationwide 27, Aquatic Habitat Restoration authorization. A Nationwide Permit (NWP) is a standardized form of a 404 permit and will authorize the placement of fill material (boulders) with the federal jurisdiction (WOUS) of the Truckee River.

CWA 401 Water Quality Certification (NDEP Bureau of Water Quality Planning)
An NDEP issued 401 Water Quality certification is a request of any federal 404 action. Trout Unlimited and NVENV will submit and obtain this permit concurrent with the federal permitting.

Temporary Discharge Permit / Working-in-Waterway (NDEP - Bureau of Water Pollution Control)
A working-in-Waterways permit will be obtained concurrent with the CWA permits (NWP and 401). State jurisdiction extends to all areas below the top- of-bank of a Water of the State, i.e., Truckee River.

Section 408 (USACE Flood Control and Navigation)
NVENV anticipates that an Environmental Assessment will be required by the USACE along with a hydraulic impact assessment for the two reaches of the river impacted by the project. A single document will be developed to fulfill the submittal requirements and discussion of project impacts aligned with each of the two project reaches.

Carson Truckee Water Conservation District Letter to USACE in recommending project approval for Crystal Peak site
Trout Unlimited and NVENV will submit the required hydrologic and hydraulic analysis to CTWCD and USACE Navigation and Flood Control to obtain authorization to modify a public works flood control facility (i.e., Truckee River).

Nevada General Construction Permit NV-100000 (Stormwater Pollution Prevention Plan)
Required by the Environmental Protection Agency (EPA) under 40 CFR § 122.26(b)(14) work within ¼ mile of a regulated water requires compliance with the Nevada General Stormwater Permit (NVR100000). This is true for sites that are less than one acre in total size, due to the proximity of receiving water.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

None at this present time.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

The scope of this grant application is for the final construction phase of the project for the Crystal Peak Park site. Additional construction funding for the Lockwood Park site will be solicited from private donors, as well as the NDOW Heritage Grant Program and the Patagonia Community Grant Program.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Dan Johnson (TU)- Project manager
Matt Setty (NVENV)- Permitting lead
Streamwise Construction- Design and implementation
Jessica Strickland (TU)- General oversight

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

Four part time roles are dedicated to the proposed project.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

Volunteer workers will be utilized to plant native riparian vegetation in and around the project footprint. We anticipate two volunteer workdays, engaging around 60 community members in 240 hours of service total.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

Summer 2023 Construction designs have been secured.
Winter 2023-2024 Permitting begins, pre application with regulatory agencies.
Spring 2024 Permitting applications submitted.
Summer 2024 Construction funding secured, permits secured.
Fall 2024 Construction of restoration project.

12.) What factors will indicate a successful project?*

Outcomes
1. Meaningful increases in fish and macroinvertebrate populations between pre-construction and post construction surveys such as snorkel surveys, electrofishing, and the Surface Ambient Water Monitoring Program will be observed and shared with the public.
2. Increases in suitable aquatic habitat will be documented through scientific protocols such as Stream Condition Inventories and shared with the public.
3. Over 75 community members will be engaged and educated on the state of the Truckee River at project sites, fundamentals and benefits of river restoration, and Trout Unlimited's mission.

4. Long term partnerships will be created with land managers and agencies, leading to increased collaboration and cooperation on future projects.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

Washoe County Parks- Land Manager
NDOW- initial site selection, potential funder
Sagebrush Chapter of TU- current funder
Pyramid Lake Paiute Tribe- TROAA signatory, stakeholder in Lahontan Cutthroat Trout recovery
Patagonia- Volunteer support and potential funder
Trout Unlimited has received funding totaling $44,000 for planning and permitting from private donors and the Sagebrush Chapter of Trout Unlimited.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$48,154.15

Cash

$48,154.15

For the cash portion, is the funding already being held by the applicant for this project?

Yes

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

Description of matching funds/in- kind donations.*

Matching funds provided through private donors and a grant from the Sagebrush Chapter of TU.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

TU Financials & Board Info.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

TRF Budget Trout Unlimited.pdf

Truckee River Habitat Enhancement

Lockwood & Crystal Peak Park Sites

2023 Proposal

prepared for

Trout Unlimited, Project Proponent

January 19, 2023

STREAMWISE

Stream Assessment and Restoration

Achieving restoration goals with natural stream form, processes, and function.

600 S. Mt. Shasta Blvd.
Mt. Shasta, CA 96067
(530) 941–6334
www.streamwise.com

Purpose: Provide a narrative to support the conceptual design plan for fishery habitat enhancements along the Truckee River at the Lockwood and Crystal Peak Park sites.

(Note: This narrative is intended to be coupled with a series of worksheets supporting conceptual design parameters at the two sites. References may be made within this document to diagrams, calculations, or specifications within those worksheets.)

Background:

StreamWise was contacted by Daniel Johnson of Trout Unlimited to asses two sites along the Truckee River for the possibility of fishery habitat enhancements similar to other projects in the region. Both sites under consideration are on the Nevada reach of the Truckee River.

In the past ten years actions have been taken to enhance the fishery habitat features along the Truckee River at many regional locations. The projects were designed to meet some or all of the following objectives:

- Provide in-stream holding habitat for native trout
- Stabilize the eroding vertical banks to allow for revegetation processes to succeed
- Utilize convergent flow velocity to create deep downstream scour pools
- Reduce the width to depth ratio to enhance habitat & reduce temperature gain
- Provide aesthetic in-stream features using natural rock materials
- Increase sinuosity in artificially straightened reaches
- Maintain channel capacity
- Provide a cost-effective means of achieving above objectives

StreamWise projects to implement designs that achieve some or all the above objectives have been completed at diverse locations from the upper sections of the Truckee near Palisades Resort to the lower Truckee reach upstream of the confluence with Pyramid Lake. Several restoration methodologies were incorporated, but three types of rock structures were the prominent features used to achieve project objectives. The three structures are the J-Hook Vane, the Cross-Vane, and the W-Weir. All design criteria follow specifications developed by Wildland Hydrology with attention to vane angle, slope, elevation, rock size, footing depth, and other details critical to the long-term stability and performance of the structures. These criteria are outlined within the Specifications Worksheets that accompany this report (*see Specifications Worksheets 6.0, 6.1, and 7.0*). Additional design parameters, calculations, diagrams, and structural specifications for construction can be found in a 2006 publication issued by Dave Rosgen, P.H., Ph.D., Wildland Hydrology. Cross-Vane, W-Weir, and J-Hook Vane Structures. Description, Design and Application for Stream Stabilization and River Restoration. (*www.wildlandhydrology.com*)

Most stakeholders consider past habitat enhancements at other sites along the Truckee to be beneficial to the habitat diversity, health, and function of the ecosystem. Periodic monitoring at several restoration sites documents good populations of native fish in the vicinity of the rock structures.

Crystal Peak Park - Historic Considerations:

According to the historic register, Verdi has been the site of intense logging and ice harvest activities following the 1850s gold rush. Both these enterprises were known to require impoundments along the Truckee for either mill operations or ice harvest. With such close proximity to the railroad, it is reasonable to assume past river alterations designed to facilitate commercial endeavors took place at the Crystal Peak Park reach. Most of the reach between I-80 and the Crystal Peak Road bridge exhibit the limited habitat diversity of several other known sites of historic impoundments.

Regardless of the precise historical activities that might have contributed to this condition, the reach under consideration for habitat enhancement is largely devoid of the large rock and boulders typical of much of the rest of the Truckee in this region. The regulated flow through the reach resulting from tributary reservoir storage limits the ability of the Truckee to provide sufficient flow volumes that might speed natural recovery through periodic flushing flows.

These factors combine to support actions to enhance the diversity of the reach. This report does not offer insight into historical activities, but seeks to provide solutions to the degraded habitat conditions along the 1000-foot reach under review.

Lockwood Reach - Historic Considerations: Research indicates that the Lockwood reach may have been impacted by factors other than ice and logging impoundments. It has been well-documented that in the 1950s and 1960s the U.S. Army Corps of Engineers developed flood-control projects along most of the Truckee from Tahoe City, through the City of Reno, and eastward toward Paiute Tribal property near Pyramid Lake. It is not known if this effort included stream channel alterations along the Lockwood reach, but the lack of habitat diversity along the 3000-foot reach would indicate past alterations play a role in the degraded nature of the ecosystem. As with the Crystal Peak Park site, it may not be necessary to pinpoint the precise combination of factors that contribute to the lack of in-stream habitat. It is our goal to examine measures that restore diversity to the river while maintaining natural aesthetics, stream form and function.

Lockwood - Current Conditions:

When comparing channel width at sites with adequate in-stream habitat to channel width within the degraded reach, it appears that the target reach averages approximately 20 feet wider than functional reaches (122.8’ vs 142.5’). Additionally, the riverbed has little diversity of rock and boulder size classes that are more typical of other Truckee reaches.

Cross-sectional and longitudinal surveys were not conducted due to inclement weather and flow conditions, but will be completed in spring to support these visual observations. The stream morphology exhibits a wide, shallow cross-section that is not conducive to diverse aquatic biota. Potential causes for this are discussed in the Historical Considerations section above.

Conclusions from the initial assessment site visit indicate that the target reach at the Lockwood site is somewhat “sterile” from a habitat perspective. While far from the literal meaning of the word *sterile*, it is used as a comparative term for the reach based on

the more pristine nature of many Truckee reaches where diverse rock and boulder classes combine to create complex flow patterns, scour pools, riffles, runs, and pools.

Current Conditions (Crystal Peak Park Site):

As with the Lockwood site, the Truckee along Crystal Peak Park exhibits narrower widths within functional reaches when compared to a slightly over-widened channel condition for the reach under consideration for action (73.5' vs. 88.0').

Cross-sectional and longitudinal surveys were not conducted due to inclement conditions, but will be completed in spring to support these visual observations. The stream morphology exhibits a wide, shallow cross-section that is not conducive to diverse aquatic biota. Potential causes for this are discussed in the Historical Considerations section above.

As mentioned above, this reach also appears to be more "sterile" from a habitat perspective than surrounding river locations where a wide diversity of rock and boulder size classes create complex flow patterns and other habitat features.

Proposed Actions: (Lockwood and Crystal Peak Park) The similarities in the current degraded conditions of each site, the straight channel configuration and stable bank vegetation allow consideration of habitat enhancement design that does not alter the capacity of the channel, but adds diversity to the reach. Recommendations for design can therefore follow parallel patterns with minor adjustments for the variations at each location. For each site it is recommended that a series of alternating rock j-hook vanes be constructed to achieve the following objectives:

- Decrease the effective channel width to mimic functional conditions
- Increase mean velocity in the central channel thalweg
- Increase mean depth by increasing sediment transport capacity
- Increase channel sinuosity and diversify flow patterns
- Diversify in-stream fishery habitat features
- Improve holding areas for native trout in scour pools below vanes

Rock vane on Truckee River near Glenshire Drive. 2020

Design and specifications for construction of the boulder j-hook vanes comes from Wildland Hydrology in their 2006 publication CROSS-VANE, W-WEIR, and J-HOOK VANE STRUCTURES Description, Design, and Application for Stream Stabilization and River Restoration. StreamWise has constructed nearly 400 similar structures based on

these design criteria and has found the performance and stability of the method to be universal regardless of channel variations. Design criteria must take into consideration variables of meander length, channel width, radius of curvature, bed shear stress, etc. Once these criteria are applied to the design, the rock structures have proven to be highly effective to achieve the stated objectives.

Reach Specifics:

Since the proposed Lockwood structures are situated along a relatively straight reach without significant lateral erosion issues, it is recommended that five j-hook vanes be placed approximately 490-foot spacing intervals to achieve the stated habitat enhancement objectives (*see Specifications Worksheet 2.0*). At the Crystal Peak Park site five j-hook vanes are also recommended, although the spacing is reduced to 180 feet due to the smaller channel dimensions and situation along a gentle meander bend of the channel (*see Specifications Worksheet 2.1*). Additionally at each location, boulder clusters should be added between each vane to create further habitat diversity. These will be situated following vane construction to take advantage of flow patterns that create scour pools around the boulders and prevent inundation of finer bed materials around the rocks. There is sufficient channel length to place additional j-hook vanes and boulder clusters along the Lockwood reach if such additional habitat is deemed to be beneficial and cost effective.

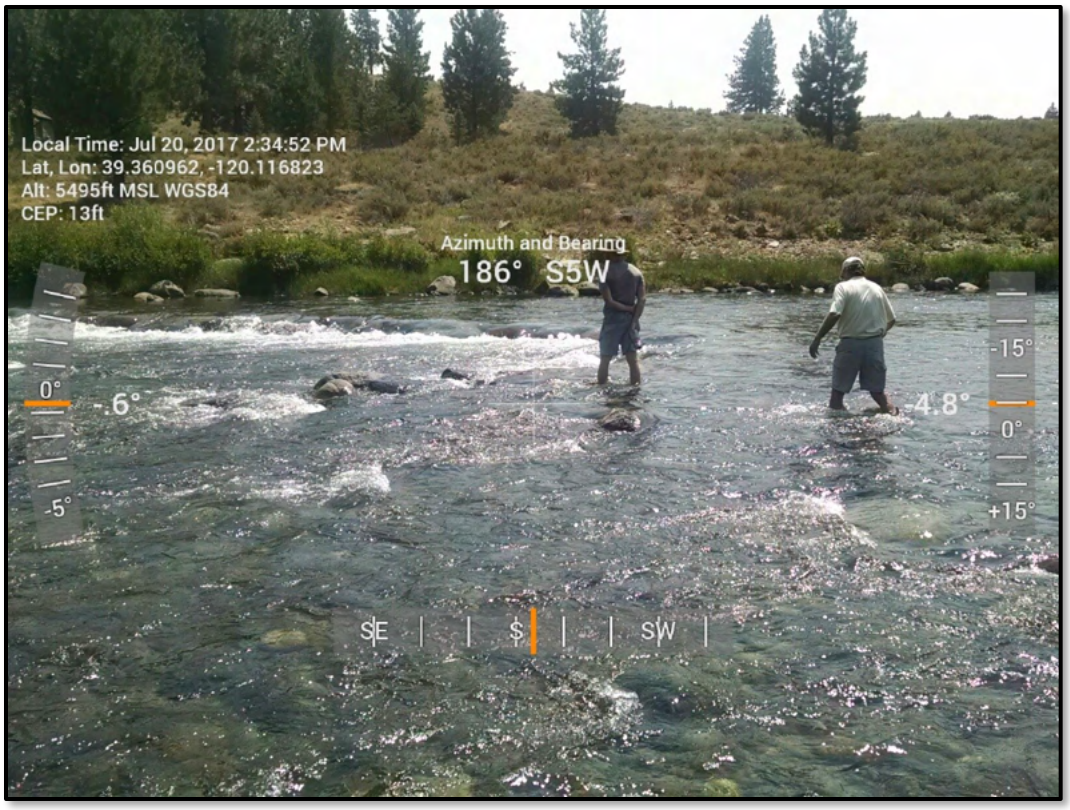
Straight reach with limited in-stream habitat. Jan 2023

Sufficient rock for project construction was not found at either project vicinity, so delivery from regional commercial sources will need to be arranged. Staging areas to facilitate the project will be determined and approved prior to any mobilization of materials or machinery.

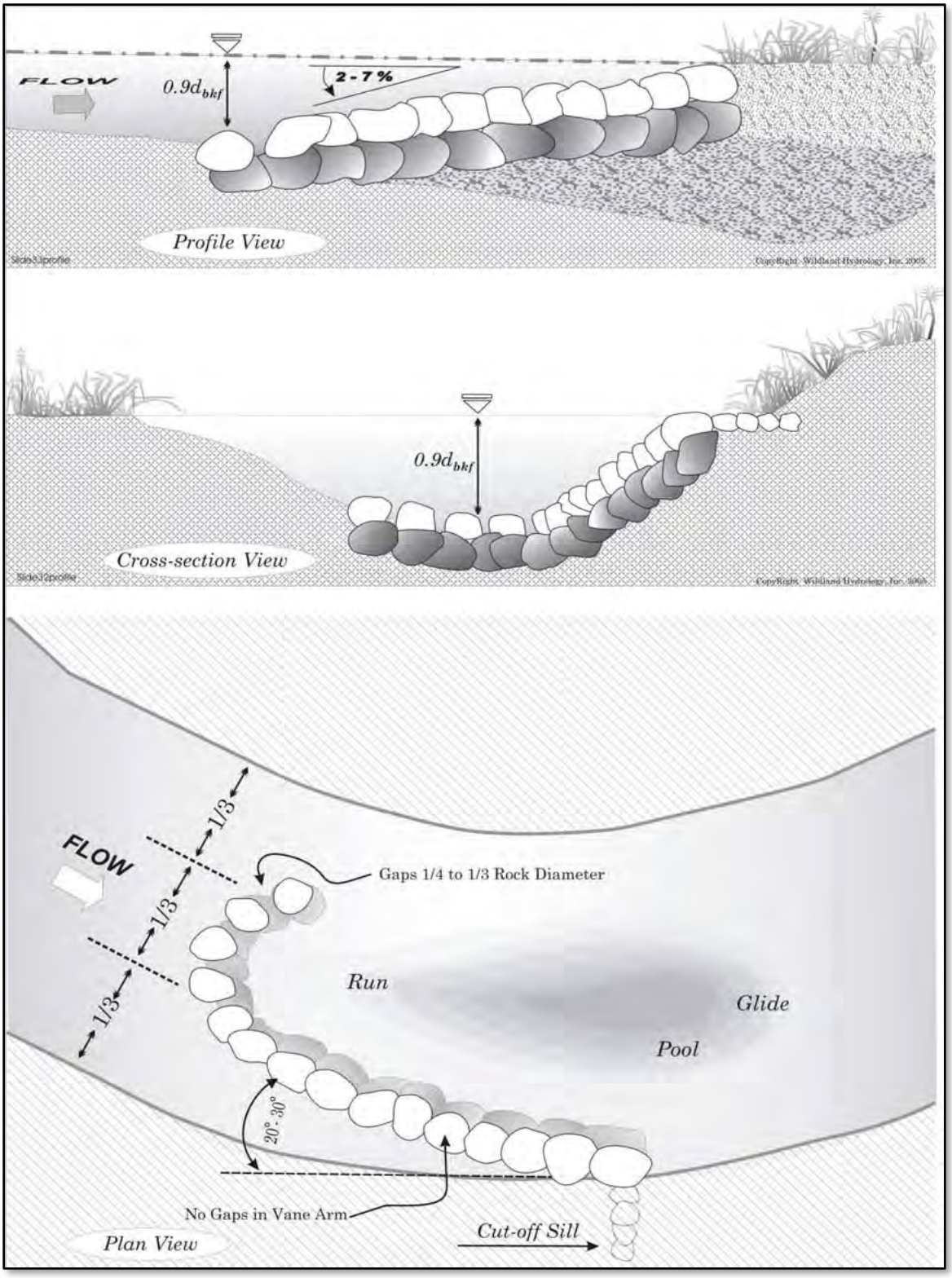
The specifications for each rock structure are included below and have been developed to maximize the bank protection value and in-stream habitat function. While spacing is dissimilar for the two sites, other specifications are the same.

The quantity of rock required for construction of a single j-hook vane varies greatly dependent upon depth of channel at each location. As the vane series must be set at an

elevation relative to the other vanes to work effectively in moving the high-velocity core away from exposed banks, there is little room for vertical adjustment to vane height. Deeper areas require significantly more rock to achieve the objectives. Each vane requires a minimum of 50 tons of rock, even when situated in shallow areas. Footing rock is critical to long-term stability to prevent scour from damaging the vane configuration. Deeper channel locations require 100 tons or more to properly construct. For estimation purposes an average figure of 82.7 tons per j-hook vane was used. (*For project total estimates see Specification Sheet 6.0.)*



J-Hook Vane on Truckee near Glenshire Drive. (Note convergent flow pattern.)



Rosgen J-Hook Vane diagram. (*CROSS-VANE, W-WEIR, and J-HOOK VANE STRUCTURES Description, Design and Application for Stream Stabilization and River Restoration. David L. Rosgen, P.H., Ph.D.)*

General J-Hook Vane Specifications	
rock size	2000 to 3000#
rock total - Lkwd	448 tons
rock total - CCP	438 tons
machinery	Cat 314E w/ thumb
bank angle	20-30 degrees
arm slope	2-7 degrees
step height	less than 12" elev. change
vortex spacing	minimal
crew	2 operators
native plantings	TBD by TU staff
construction	approx. 8 days (2 sites)

Series of j-hook vanes protecting RB along Pit River, Modoc County, CA

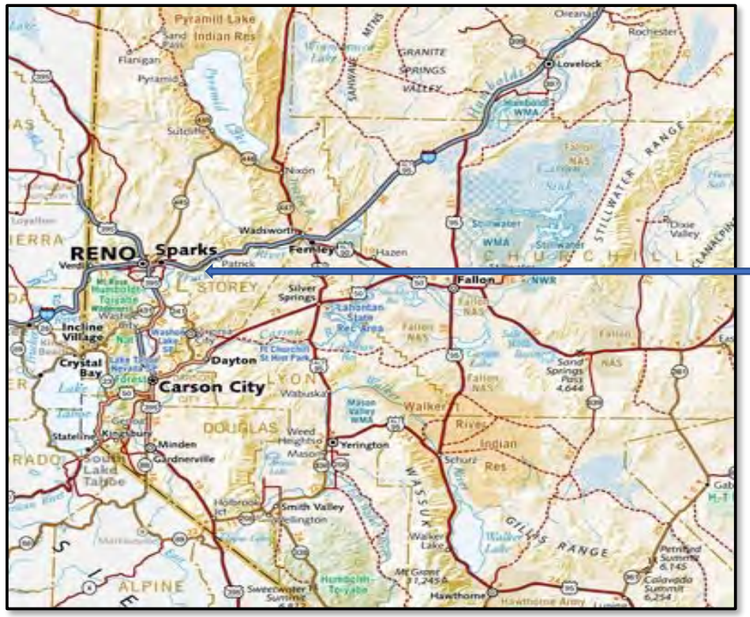
(See Specification sheet 2.0 for additional information.)

(See Specification sheet 2.1 for additional information.)

Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT LOCATION - LOCKWOOD PROPERTY

LOCATION MAP



Project Location
39.50839330386482, -119.6615805529288

PREPARED FOR:

Daniel Johnson
Trout Unlimiteed, Truckee Office
15695 Donner Pass Road, Ste. 100
Truckee, CA 96161
Mobile: 530-333-5125
Dan.Johnson@tu.org

PREPARED BY:

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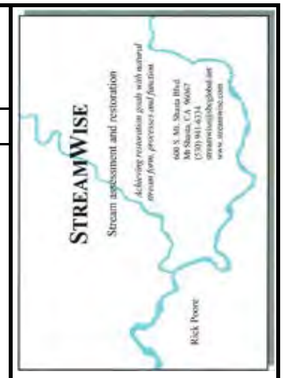
CONTENTS:



REVISION	BY	DATE
initial plans	DRP	1/9/2023

CONCEPTUAL PROJECT DESIGN

TRUCKEE RIVER HABITAT ENHANCEMENT

Washoe/Storie Counties, NV

Trout Unlimited - Project Proponent

PROJECT NUMBER
TRK- NV-2023-01

SCALE
1" =

SHEET
1.0

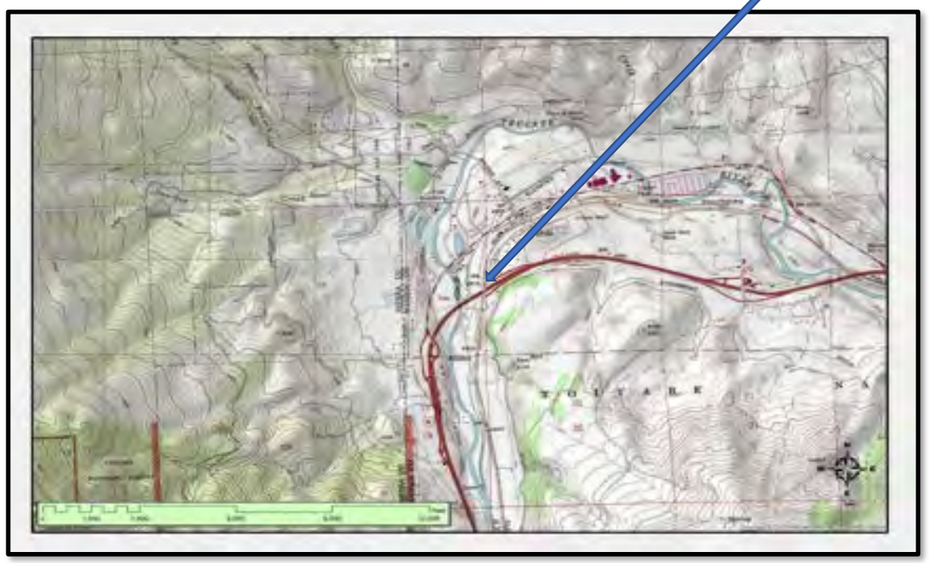
Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT LOCATION - CRYSTAL PEAK PARK

LOCATION MAP

Crystal Peak Park Project Location

Project Location
39.51151658870248, -119.99585093347248



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website: www.streamwise.com
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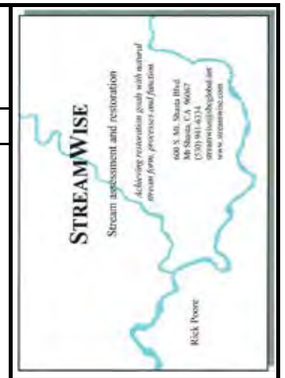
CONTENTS:



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Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

LOCKWOOD REACH PLAN VIEW MAP - ArcMap

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TRUCKEE RIVER HABITAT ENHANCEMENT

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SCALE
(see scale bar)

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Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PLAN VIEW MAP - ArcMap

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SCALE
(see scale bar)

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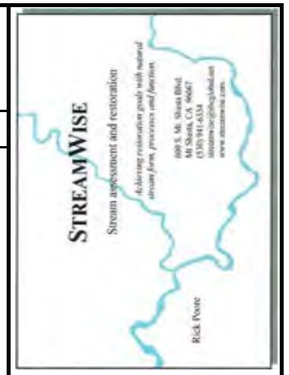
2.1

Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

LONGITUDINAL PROFILE - THALWEG / WATER SURFACE / BANKFULL INDICATORS

Longitudinal field data collection TBD following peak flow events.



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Washoe/Storie Counties, NV

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Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

CROSS-SECTIONAL SURVEY - DATA SET & CHART

Cross-sectional field data collection TBD following peak flow events.

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Mt Shasta, CA 96067
(530) 941-6334
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TRUCKEE RIVER HABITAT ENHANCEMENT

Washoe/Storie Counties, NV

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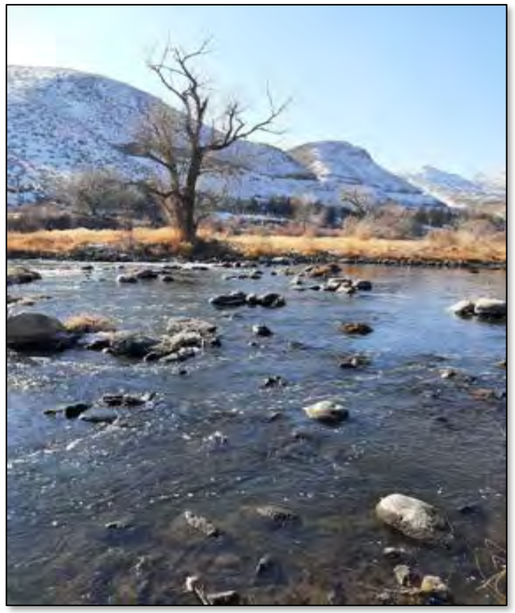
Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT PHOTO POINTS - LOCKWOOD REACH

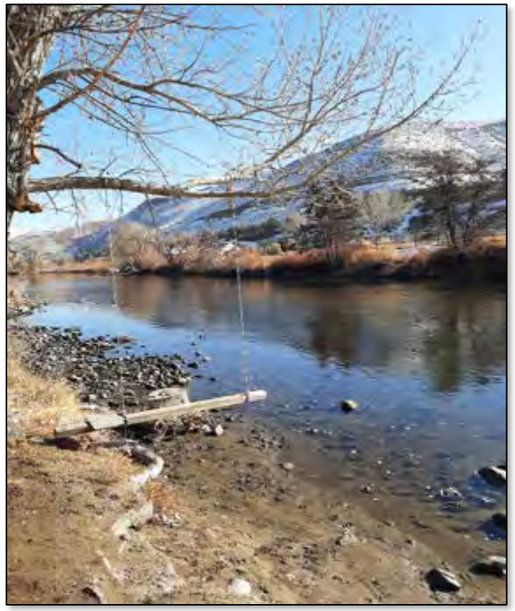


Near entrance. Moderate habitat diversity

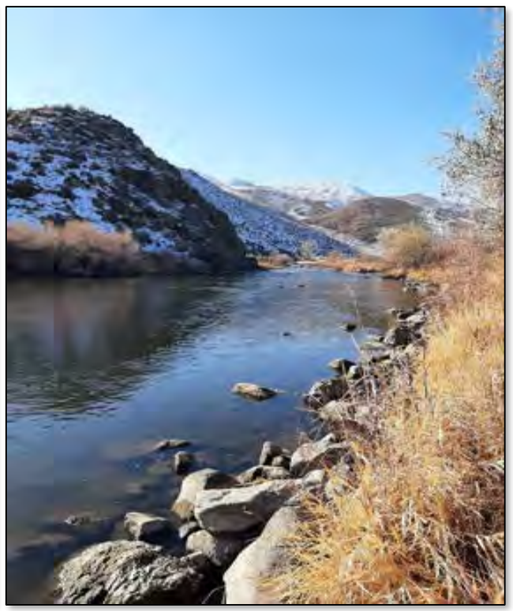
Upstream with low habitat value

Wide, shallow channel morphology

Access trail

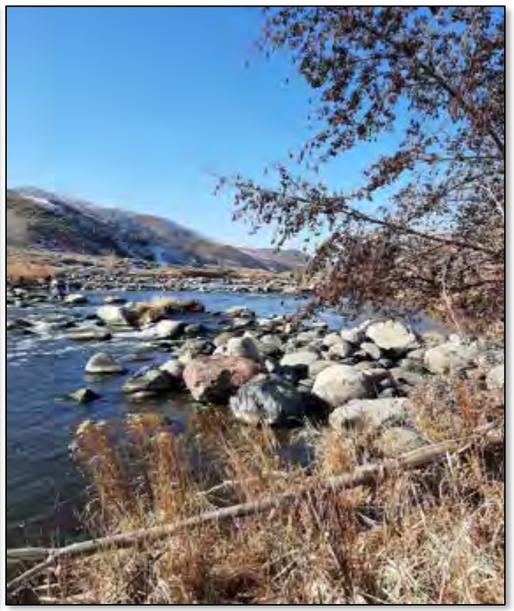


Relatively stable banks



Overwidened reach

Historic rock wall undermined by flow.



Upper boundary with TNC rock structures

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TRUCKEE RIVER HABITAT ENHANCEMENT

Washoe/Storie Counties, NV

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5.0

Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT PHOTO POINTS - CRYSTAL PEAK PARK REACH

Good habitat diversity - north reach (Downstream)

Moderate habitat value just upstream

Low habitat value central reach

CPP Historical marker

Low habitat value central reach

Low habitat value south reach (upstream)

CPP Entrance sign

Historic mill location at CPP

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Washoe/Storie Counties, NV

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1" =

SHEET
5.1

Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT PHOTO POINTS - Typical J-Hook Vane Structures

J-Hook vane series along Pit River meander - Modoc County, CA

Pair of J-Hook Vanes along Truckee River

J-Hook Vane on Truckee River

J-Hook Vane series following placement
Truckee River near Pyramid Lake

J-Hook Vane series following construction and willow planting
Truckee River near Pyramid Lake

J-Hook Vane in dry stream showing scour pool below

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Washoe/Storie Counties, NV

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5.0

Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT SPECIFICATIONS - J-Hook Vane

General J-Hook Vane Specifications	
rock size	2000 to 3000#
rock total - Lkwd	448 tons
rock total - CCP	438 tons
machinery	Cat 314E w/ thumb
bank angle	20-30 degrees
arm slope	2-7 degrees
step height	less than 12" elev. change
vortex spacing	minimal
crew	2 operators
native plantings	TBD by TU staff
construction	approx. 8 days (2 sites)

Truckee River at Lockwood, NV Site

vane spacing calcs (Vs)

variables	1	2	3	4	5	6	total	avg
radius of curvature (Rc)	475	990	291	740	436	530	3462	577.0
bankfull width (W)	137	135	126	135	145	177	855	142.5

Rc/W 4.05

Vs = ratio vane spacing / width			Vs ratio	Vs	25 degree
20 degree Vs = -0.0057W + 2.5538	-0.0057	2.5538	1.74155	248.2	**191.0**
30 degree Vs = -0.0089W + 2.2067	-0.0089	2.2067	0.93845	133.7	

Truckee River at Crystal Peak Park - Verdi, NV

vane spacing calcs (Vs)

variables	1	2	3	4	5	6	total	avg
radius of curvature (Rc)	650	642	627	530	707	581	3737	622.8
bankfull width (W)	82.3	84.6	106.1	94.5	78.5	82	528	88

Rc/W 7.08

Vs = ratio vane spacing / width			Vs ratio	Vs	25 degree
20 degree Vs = -0.0057W + 2.5538	-0.0057	2.5538	2.0522	180.6	**152.9**
30 degree Vs = -0.0089W + 2.2067	-0.0089	2.2067	1.4235	125.3	

Misc Notes	
1	All rock & bench materials to be staged in designated areas
2	Planting crew & materials to be supplied through TU
3	All plantings to be native riparian species common to site
4	Vane construction to be supervised by StreamWise
5	Rock materials source to be determined
6	All rock sized to prevent alteration to structure by flow or public usage
7	Approx. vane spacing based on bankfull width, radius of curvature, and meander length
8	Footing rock to be set for scour protection
9	Wheel loader to be used to supply boulders to excavator operator
10	In-stream cobble/gravel mix will be used to "seal" vane arms on upstream side
11	Landowner agreements & permits to be secured by TU prior to construction
12	Revegetation to follow construction sequence as soon as possible
13	Project construction to follow all permit requirements

CROSS-VANE DIAGRAM & SPECIFICATIONS

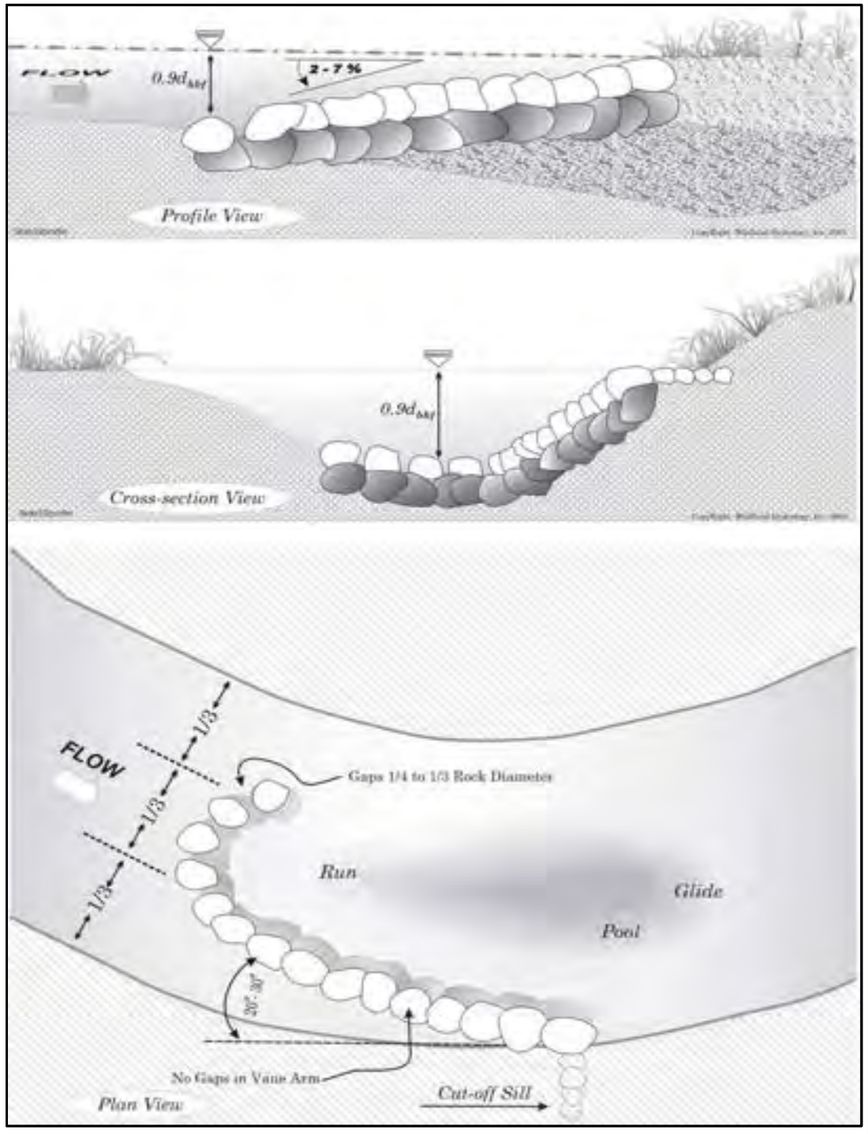

diagram from Wildland Hydrology Publication
CROSS-VANE, W-WEIR, and J-HOOK VANE STRUCTURES
(Updated 2006) Description, Design and Application for
Stream Stabilization and River Restoration
David L. Rosgen, P.H., Ph.D.

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CONCEPTUAL PROJECT DESIGN

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Washoe/Storie Counties, NV

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SCALE
1" =

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Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

PROJECT SPECIFICATIONS - BOULDER SIZE CHART

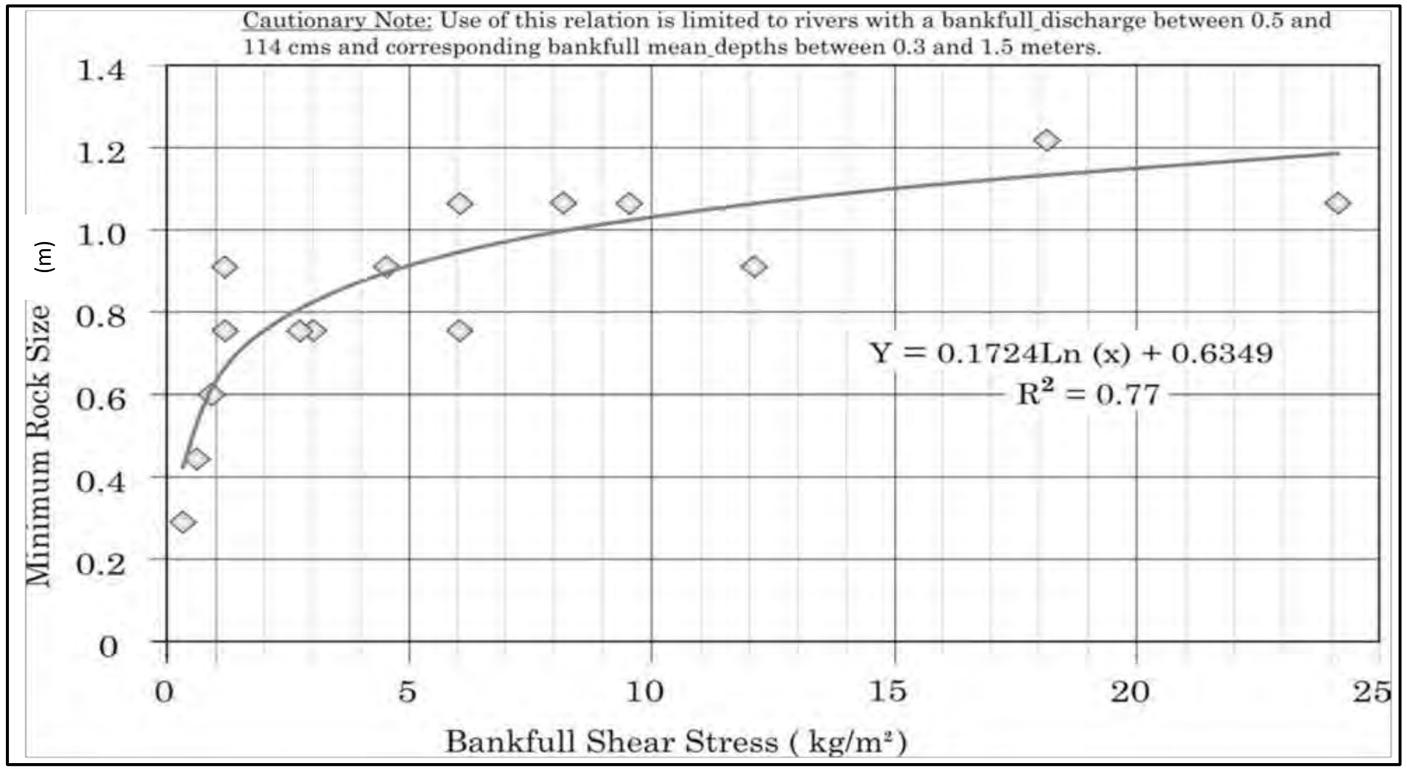

Chart from Wildland Hydrology Publication
CROSS-VANE, W-WEIR, and J-HOOK VANE STRUCTURES
(Updated 2006) Description, Design and Application for
Stream Stabilization and River Restoration
David L. Rosgen, P.H., Ph.D.

Primary boulder size for all structures to be 2000-3000# size class (approx. 1.0-1.5 meter in B-axis)
Footing rock comprised of 1500# Plus size class
Boulder density to be approx. 2.5 to 2.8 g/cu. cm (156 to 175 lbs/cu. ft.)
Size class estimates & design supported by 30+ existing rock structures at Truckee River sites

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600 S. Mt. Shasta Blvd.
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REVISION	BY	DATE
initial plans	DRP	

CONCEPTUAL PROJECT DESIGN

TRUCKEE RIVER HABITAT ENHANCEMENT

Washoe/Storie Counties, NV

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TRK- NV-2023-01

SCALE
1" =

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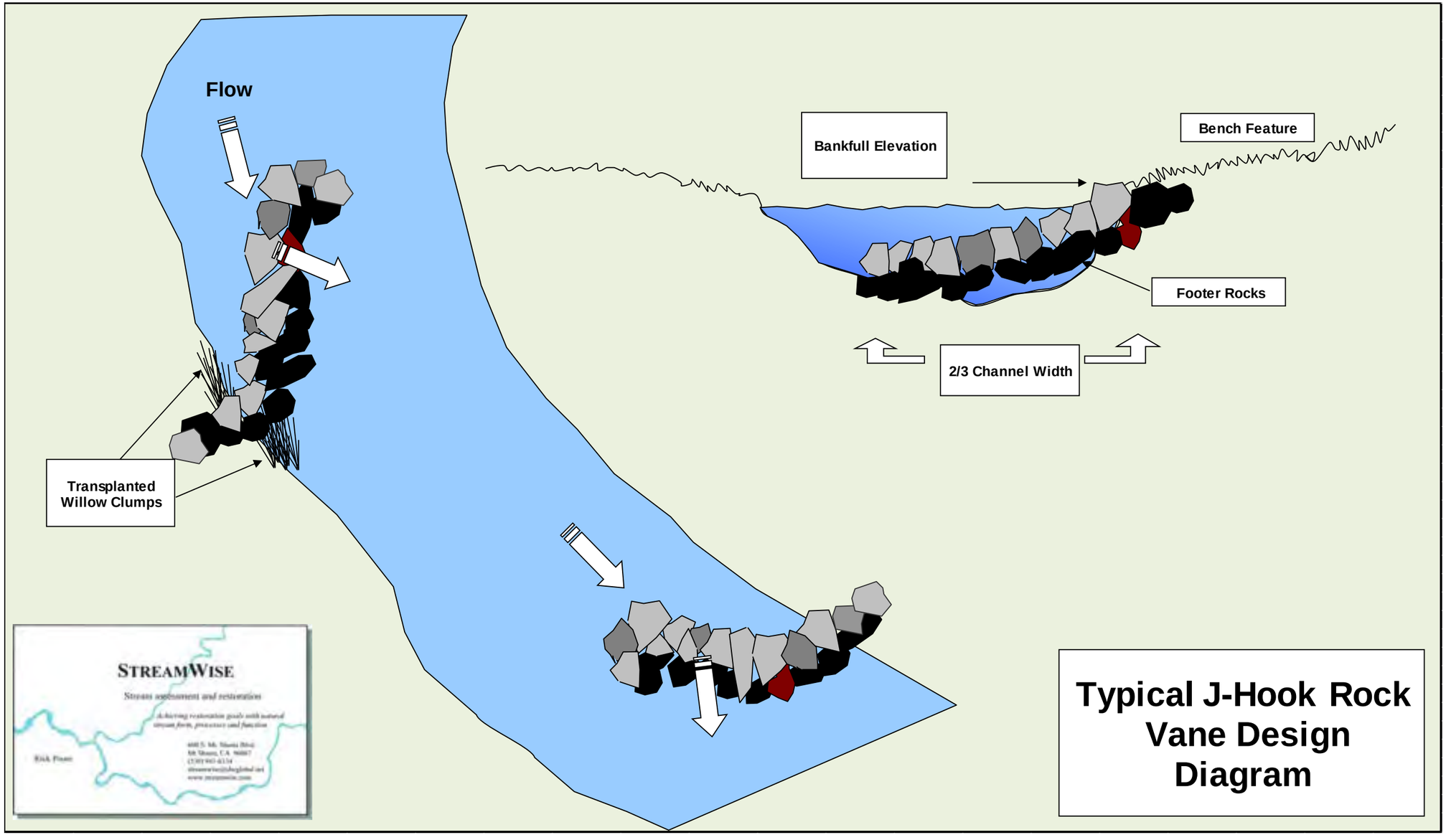
Truckee River Habitat Enhancement - Lockwood / Crystal Peak Park

TYPICAL DIAGRAM - J-HOOK ROCK VANE

PLANVIEW TYPICAL DIAGRAM - Alternating bank vane configuration



Typical J-Hook Rock Vane Design Diagram

diagram not to scale

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REVISION	BY	DATE
initial plans	DRP	1/13/2023

CONCEPTUAL PROJECT DESIGN

TRUCKEE RIVER HABITAT ENHANCEMENT

Washoe/Storie Counties, NV

Trout Unlimited - Project Proponent

PROJECT NUMBER
TRK- NV-2023-01

SCALE
diagrams not to scale

SHEET
7.0

Trout Unlimited
Lower Truckee Trout Habitat Project Budget

Total Project Budget = $97,631.62

A. PERSONNEL SERVICES

TU Staff (rate includes benefits)	Hours	Rate	Type	Budgeted	TRF Funding	Match	Other Funders
TU CA Inland Trout Program Director - Jessica Strickland (General oversight, funding)	60.00	$91.54	Hours	$5,492.40		$5,492.40	Corporate Donors
TU Desert Terminal Lakes Project Coordinator - Dan Johnson (PM, Permitting lead)	240.00	$54.53	Hours	$13,087.20	$7,407.43	$5,679.77	Sagebrush Corporate Donor
Northern Sierra Project Manager - Michael Cameron - Permitting Assistance	40.00	$63.44	Hours	$2,537.60	$2,537.60		
Inland Trout Lead Field Technician - Project Monitoring	60.00	$ 27.30	Hours	$1,638.00	$1,638.00		
SUBTOTAL: PERSONNEL				**$ 22,755.20**	**$ 11,583.03**	**$ 11,172.17**	

B. OPERATING EXPENSES: GENERAL

Items (units)	Number of Units	Cost per Unit	Type	Budgeted	TRF Funding	Match	Funded By
Construction material (incl. transportation) (in tons)	438	$ 32.97	Materials	$14,440.86	$14,440.86		
Permitting Fees	1.00	$ 1000.00	Fees	$1,000.00		$1,000.00	Sagebrush
Printing and Media	1.00	$ 500.00	Materials	$500.00		$500.00	Sagebrush
Monitoring Equipment (Temp loggers, flagging, rebar, etc)	1.00	$ 1000.00	Materials	$1,000.00		$1,000.00	Sagebrush
Travel	300.00	$ 0.67		$201.00		$201.00	Sagebrush
SUBTOTAL OPERATING EXPENSES: GENERAL				**$ 17,141.86**	**$ 14,440.86**	**$ 2,701.00**	

C. OPERATING EXPENSES: SUBCONTRACTORS

Contractors			Type	Budgeted	TRF Funding	Match	Funded By
Permitting Consultant (USACE 404) - Archeology			Contractor	$12,000.00		$12,000.00	Corporate Donor
Permitting Consultant (USACE 404) - Botany			Contractor	$8,000.00		$8,000.00	Corporate Donor
Restoration Design			Contractor	$8,000.00		$8,000.00	Sagebrush
Construction Contractor			Contractor	$17,000.00	$17,000.00		
SUBTOTAL OPERATING EXPENSES: SUBCONTRACTORS				**$ 45,000.00**	**$ 17,000.00**	**$ 28,000.00**	

D. SUBTOTALS & INDIRECT COSTS

SUBTOTAL A + B + C			$84,897.06	$43,023.89	$41,873.17	
SUBTOTAL: INDIRECT CHARGES	15.00%		$12,734.56	$6,453.58	$6,280.98	
E. GRAND TOTAL			***$97,631.62***	***$49,477.47***	***$48,154.15***	

Funding Recieved	
Corporate Donor	**$34,154.15**
Sagebrush Chapter Trout Unlimited	**$14,000.00**
Total Funding Recieved	***$48,154.15***
Match Percent of Ask	***97.33%***

TRF #290 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2024

Truckee River Fund- Spring 2024

Friends of Nevada Wilderness

Shaaron Netherton
1360 Greg St
Suite #111
Sparks, NV 89431

O: 775-324-7667

Chris Cutshaw

1360 Greg St
Suite #111
Sparks, NV 89431

chris@nevadawilderness.org
O: 775-324-7667

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness:** Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Friends of Nevada Wilderness

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

88-0211763

Director of Organization*
Shaaron Netherton

Project Contact Name*
Chris Cutshaw

Project Contact Postion/Title*
Stewardship Manager

Project Contact Email*
chris@nevadawilderness.org

Project Contact Phone Number*
775-324-7667 *205

Organization Mission*
Friends of Nevada Wilderness is dedicated to preserving all qualified Nevada public lands as Wilderness, protecting all present and potential Wilderness from ongoing threats, educating the public about the values of and need for wilderness, and improving the management and restoration of wild lands.

Project Information

Project Title*
Name of Project.

TRF #290 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2024

Amount Requested*
$26,951.00

Project Start Date*
03/01/2024

Project End Date*
12/31/2024

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

Remove noxious weeds from the Hunter Creek watershed and reseed treated areas with native seeds to protect the water quality of the Truckee River and its watershed. We will host 5 removal projects, 2 re-seeding projects, and monitor known weed sites.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*

No

If so, are those permits and decision documents already secured?

If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*

Yes

If yes, please include the following information for all previously funded projects:

- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Date awarded: March 2023
Project title: TRF #276 Mount Rose Noxious Weed Monitoring, Treatment, and Re-Seeding 2023
Amount of Award: $26,343

Date awarded: March 2022
Project title: TRF #248 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding #10
Amount of Award: $23,250

Date awarded: March 2021
Project title: TRF #248 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding #9
Amount of Award: $16,445

Date awarded: March 2020
Project title: TRF #234 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding #8
Amount of Award: $28,549

Date awarded: March 2019
Project title: TRF #219- Mt Rose Noxious Weed Monitoring and Treatment #7
Amount of Award: $24,094

Date awarded: March 2018
Project title: TRF #196- Mt Rose Noxious Weed Monitoring and Treatment #6

Amount of Award: $23,500

Date awarded: March 2017
Project title: TRF #185- Mount Rose Noxious Weed Monitoring and Treatment #5
Amount of Award: $22,405

Date awarded: April 2016
Project title: TRF #168- Mount Rose Noxious Weed Monitoring and Treatment #4
Amount of Award: $21,002

Date awarded: September 2014
Project title: TRF #153- Mount Rose Noxious Weed Monitoring and Treatment #3
Amount of Award: $15,807

Date awarded: August 2013
Project title: TRF #130 Mount Rose Noxious Weed Monitoring and Treatment #2
Amount of Award: $10,896

Date awarded: March 2012
Project title: TRF # 111 Mount Rose Noxious Weed Monitoring and Treatment
Amount of Award: $13,225

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*

Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

D.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

Our goal for the 2024 Mount Rose Wilderness Noxious Weed Monitoring, Treatment, and Re-seeding project is to remove invasive weeds from the Hunter Creek watershed while re-seeding the affected areas with a native seed mix to improve the quality of water, biodiversity, and ecosystem resiliency within the greater Truckee River watershed. We will remove the noxious weed musk thistle (Carduus nutans) with the help of volunteers. The invasive musk thistle spreads very rapidly due to its high seed production of up to 120,000 seeds per plant and once established can quickly change the composition of a biodiverse area to a monoculture of musk thistle. 903 volunteers have helped with this project for 13 years and we have seen significant improvement in meadows once covered by musk thistle. The Truckee River Fund has allowed this program to grow from a few small projects to a well-known and established program that provides accessible volunteer opportunities to create a meaningful impact in both the community and watershed.

The measurable goals for this project include three monitoring trips to the Hunter Creek area to monitor musk thistle growth and re-seeding efforts, removing at least 15,000 musk thistle over five volunteer projects across several sites within the watershed, and two re-seeding projects where we will re-seed at least 10 acres where weeds have been removed with a native seed mix of local grasses and flowers. Our project sites have been identified from years of monitoring and direction from the Carson Ranger District.

Weed removal projects will average eight volunteers for about six hours of on-the-ground work each, and on each re-seeding project, we plan to average four volunteers for about six hours of on-the-ground work each (288 total volunteer hours). We will also use matching and other funds to complete at least one additional weed removal project with eight volunteers for six hours. We anticipate removing at least another 1,000 weeds with matching funds.

The timeline for this project is to scout/monitor the Hunter Creek area in the spring, directly remove the musk thistle in early to mid-summer with volunteers over five projects, and reseed in the late fall. Friends of Nevada Wilderness(FNW) staff will monitor known musk thistle sites in preparation for the upcoming volunteer projects to assess plant growth, identify target areas, and continue monitoring outcomes from previous years. FNW staff will then lead volunteers to the target areas in May and June before plants can go to seed. Weeds will be removed using shovels and gloves. FNW has all the shovels and gloves needed to safely complete these projects. The re-seeding projects will be completed before a rain/snow storm in the late fall with volunteers and will cover 10 acres where musk thistle was previously removed with a USFS Botanist-approved mix, purchased by FNW, with pollinator-attracting perennial forbs.

These projects engage local volunteers and provide opportunities for education about the importance of a healthy and biodiverse watershed. FNW and volunteers have removed 282,505 musk thistle in the past 13 years from the Hunter Creek area and we look forward to continuing these projects to slow the spread of musk thistle and regenerate healthier landscapes through our re-seeding efforts.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

Project locations will be in or adjacent to Mount Rose Wilderness within the Hunter Creek watershed of the Truckee River. All known weed sites are located within 0.5-4 miles of the Truckee River and most are very close to the well-known and heavily used Hunter Creek and Steamboat Ditch Trails. Areas of concern for monitoring are the helicopter loading points used by the Carson City Ranger District to fight the Hunter Falls Fire of 2014 and the Hunter Creek Fire of 2017, which we will continue to monitor closely for any further

invasive weed developments. Musk thistle seeds are easily transported by water so managing these areas for further spread directly correlates to reduced seeds spreading downstream and threatening watershed quality.

3.) Project Description*

FNW_TRF worksites_Map.pdf
FNW staff will visit our known musk thistle sites in early spring to identify areas of greatest concern and prioritize locations for volunteers to work. We will also monitor the effectiveness of the previous year's treatments. Our main target species for removal is musk thistle (Carduus nutans), we will also be looking for weeds including perennial pepperweed (Lepidium latifolium), and medusahead (Taeniatherum caput-medusae) to provide additional information for the Forest Service.

During late April, May, and June FNW staff will lead volunteers to the worksites and remove musk thistle by digging with shovels or by hand. Though our last project usually concludes before the plants have gone to seed, if the plants have already formed viable seeds, we will clip the flower heads and pack them out to be safely destroyed. In the fall, volunteers will return to sites that were treated for musk thistle to spread a native seed mixture by hand. FNW provides some snacks, additional water, weed identification and removal training, education, and all necessary tools and personal protective equipment for volunteers. Please see the map, included in the attachments, for estimated project locations.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

The proposed projects are in line with multiple grant priorities, specifically priority #2 (Watershed Improvements), priority #4 (Re-Forestation and Re-Vegetation Projects:) priority #6 (Stewardship and Environmental Awareness).

Noxious weeds, including the musk thistle, are a concern for the long-term health and biodiversity of the Truckee River Watershed. Our proposed volunteer projects can directly improve the quality of this area by removing musk thistle and reintroducing native grasses and flowers in the same locations - improving watershed resiliency. All of the proposed actions are recommended by the Forest Service botanists and best practices for musk thistle control. Reducing weeds in the Mount Rose Wilderness decreases the amount of seeds that can spread downstream, reduces soil erosion, improves water quality, and creates a better overall visitor experience along the Hunter Creek and Steamboat Ditch Trails.

This program continues to educate the community about the importance of noxious weed mitigation while providing opportunities to directly engage in the stewardship of weed removal themselves. Volunteers who complete a project with us will have an understanding of the connection between the importance of a healthy watershed and invasive species management. By working with the public, we can encourage intentional stewardship and awareness of our local watershed and water supply needs.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

FNW_TRF_Letter of Support_DRsigned.pdf

This project does not require any special permits, and we will be taking direction from our Carson Ranger District contacts with the U.S. Forest Service.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

Our program sites are all within public land managed by the US Forest Service and the majority of the sites are within the Mount Rose Wilderness. There are no foreseeable zoning or development plans that will affect this project.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

Noxious weed management is most effective when performed consistently. For example, at musk thistle sites along the Hunter Creek Trail that FNW staff and volunteers have regularly visited over several years, the total number of musk thistle has drastically declined. Maintenance visits once a year, on our way to or from a different site is all that's required to keep musk thistle at bay and allow the native plants we spread to thrive.

The musk thistle grows prolifically and very successfully in Mount Rose Wilderness. It grows faster and earlier in the season than most native species, outcompeting them. When the musk thistle takes over an area it creates a very dense monoculture which drives out native species and eventually native animals as well. It also degrades soil quality and increases erosion. A single musk thistle plant can produce 120,000 seeds annually, which can stay dormant in the soil for up to 15 years. This long timeline requires continued annual maintenance and monitoring to effectively manage.

Friends of Nevada Wilderness has consistently outperformed our goals, using funding from the Truckee River Fund to effectively leverage volunteers, and matching funds from other sources, to help control invasive weeds at these sites and slowly reduce numbers. The volunteers and matching funds, included in the overall budget, allow us to increase the impact and sustainability of the program. Our long-term knowledge of this portion of the watershed is invaluable to its long-term health. We will continue working with the Forest Service to build upon our successes and move the program forward. The Truckee River Fund has generously supported these efforts in past years and, hopefully, will continue to be a part of this program for years to come.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Stewardship Manager, Chris Cutshaw, will oversee coordination with the Forest Service, planning and scheduling projects, reporting, and staff training.

Stewardship Coordinator, Meg Tait, will be performing much of the monitoring and leading volunteer projects in the field.

Programs Coordinator, Olivia Wolff, will be performing much of the monitoring and leading volunteer projects in the field. She will also be assisting with grant and accomplishment reporting, and print and social media promotion of the work accomplished.

Grants and Operations Manager, Nora Richter, will oversee the grant and financial reporting.

We will be coordinating with and taking direction from the USFS Carson District Recreation Officer, Botanist, and Invasive Weeds Specialist.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

Fulltime: 0 Part-time: 5

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

We anticipate having 48 or more volunteers for our weed pulls and seed-spreading projects, donating 288 hours. We will host 5 weed pulls with 8 volunteers per project and 2 seed-spreading projects with 4 volunteers per project.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

Volunteer recruitment will begin immediately upon project approval. We will begin outlining our project schedule in March, and project sign-ups and site monitoring will begin in April. The five volunteer weed removal projects will be scheduled for May and June. The dates for our fall re-seeding projects are dependent upon the weather. The seed mixes are most effective when spread before rain or snow with freezing overnight temperatures. We begin scheduling these in the fall for November and December, making sure to give volunteers enough notice to plan. Monitoring will also occur in the fall/winter to see how effective spring treatments were. Final reporting will occur in early 2025.

12.) What factors will indicate a successful project?*

We consider our program successful if deliverables are completed safely, we reach our target number of weeds removed, and the volunteers finish the projects understanding the importance of invasive weed management and its relation to the Truckee River Watershed. We will inform the Truckee River Fund committee of our successes with written quarterly reports, high-quality photographs, and copies of any earned press. We will communicate the work of the volunteers and funding from the Truckee River Fund to the general public and our more than 10,000 supporters through press releases, bi-annual newsletters, monthly e-newsletters, and social media.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

We partner with KTMB each spring to lead a project for their Great Community Clean Up (April 27, 2024) and they provide extra shovels and gloves and help with volunteer recruitment. In 2023, our Hunter Creek site had 40 volunteers for the Great Community Clean Up. Other partners who have helped engage volunteers include
Patagonia, REI, International Gaming Technologies (IGT), Midtown Rotary, NV Energy, UNR, TMCC, and Arrow Electronics. Imbib Brewery, Eclipse Pizza, and other national companies have provided free or discounted food products as part of our volunteer appreciation efforts. And of course, the US Forest Service collaborates with us to accomplish all of these projects. They provide guidance, oversight, approval, and ongoing monitoring.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$9,760.00

Cash

$4,000.00

For the cash portion, is the funding already being held by the applicant for this project?

Yes

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$5,760.00

Description of matching funds/in- kind donations.*

Cash Matching Funds:
National Forest Foundation: $3,500. Funding that is already being held by FNW. Includes funding to host at least one additional weed removal project for Spanish-speaking participants. Includes recruitment time specifically for Spanish-speaking and bilingual participants.
Individual Donations: $500. Funding that is already being held by FNW. Will help cover the cost of necessary Wilderness First Aid training for FNW's volunteer coordinators.

In-Kind:
Volunteer Labor counted at a rate of $20/hour. Five volunteer weed removal projects with 8 volunteers each for 6 hours at $20 in-kind/hr; 2 volunteer re-seeding projects with 4 volunteers each for 6 hours at $20 in-kind/hr. Total of 48 volunteers. Total of 288 volunteer hours at $20/hr for an in-kind total of $5,760.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

**Please submit as one PDF document

FNW_TRF_Financial and Board Info.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

Notes:

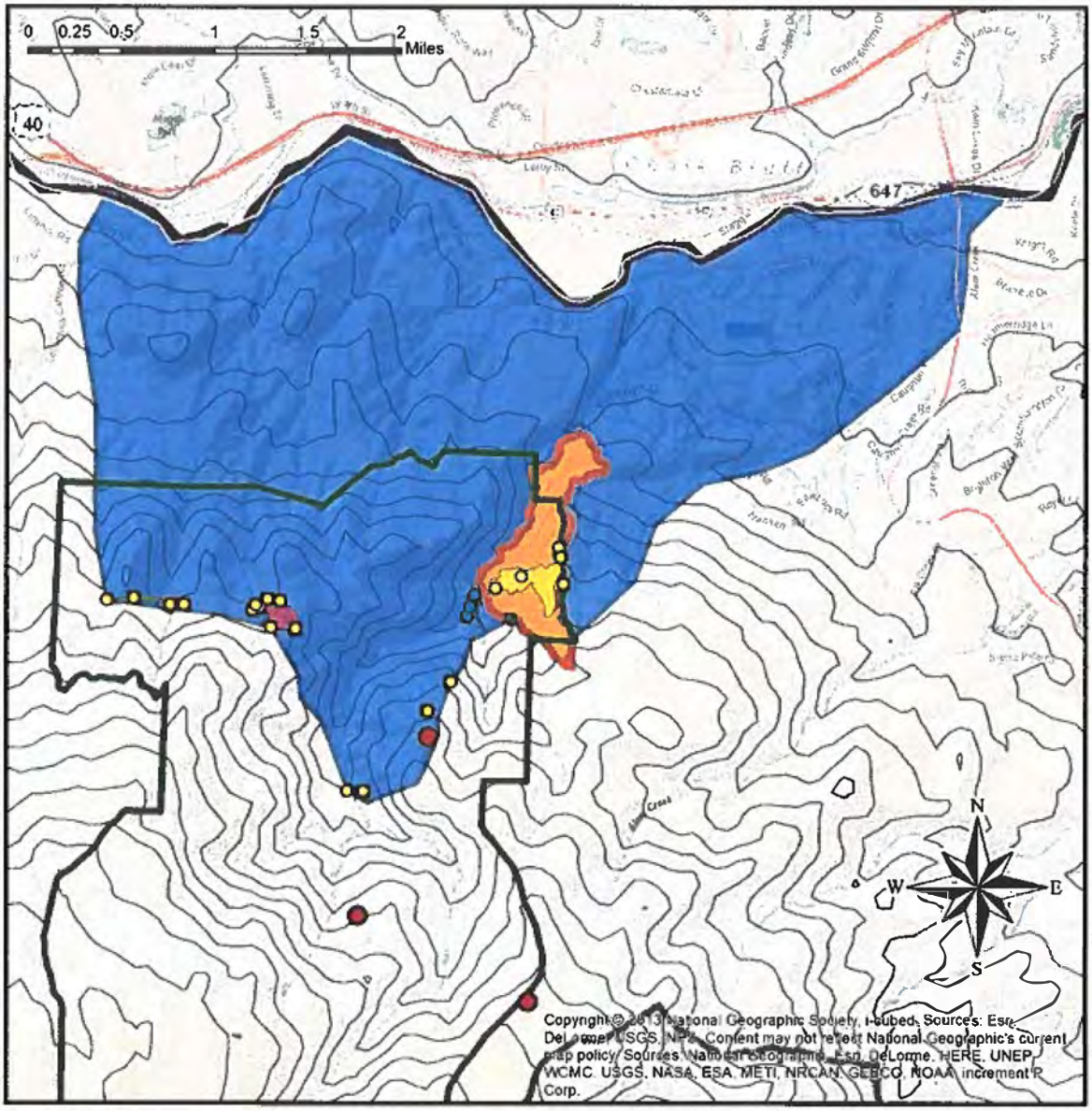
- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*

- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

FNW_TRF 2024_Budget and Narrative.pdf

FRIENDS of NEVADA WILDERNESS

Mt. Rose Wilderness Noxious Weed Monitoring and Treatment Project: Impacted Watershed



- Medusahead
- Musk Thistle
- Pepperweed
- Aviation Sites
- Truckee River
- East Fork Monitoring Site
- East Slope Monitoring Site
- Above Waterfall Monitoring Site
- Belli Front East Monitoring Site
- Belli Front West Monitoring Site
- Mt. Rose Wilderness Boundary
- Hunter Creek Fire
- Impacted Watershed ~ 5,582 acres
- 200ft Contour

FRIENDS of NEVADA WILDERNESS

USDA United States Department of Agriculture | Forest Service | Humboldt-Toiyabe National Forest | Carson Ranger District
1536 South Carson Street
Carson City, NV 89701
775-882-2766

File Code: 1580
Date: February 1, 2024

Truckee River Fund
Community Foundation of Northern Nevada
50 Washington St Suite #300
Reno, NV 89503

RE: Mt Rose Wilderness Musk Thistle Removals and Native Seed Spreading.

To whom it may concern,

Please accept this letter of support for the Mt. Rose Wilderness Musk Thistle Removals and Native Seed Spreading project. As the land managers of the Humboldt-Toiyabe National Forest, Carson Ranger District, we are expressing our support of Friends of Nevada Wilderness' (FNW) proposed projects in and around the Mt. Rose Wilderness. FNW has been working closely with the Carson Ranger District for over 10 years to treat invasive plants. As a result of this work, we have seen a direct benefit to the habitat and ecosystem of the Truckee River Watershed. We highly value our partnership which goes beyond invasive weed treatment and monitoring to include education projects, solitude monitoring, impact monitoring, trail maintenance, and other projects. FNW has a track record of effectively executing many grants from a variety of sources. We are confident that FNW will do the same with this funding.

The Carson Ranger District will provide support to FNW in accomplishing the goals and objectives of the project. We thank you for your generous consideration and support of these important restoration efforts.

The Humboldt-Toiyabe National Forest, Carson Ranger District is pleased to partner with the FNW and happy to provide this letter of support for this project. If you have additional questions, please contact Brian Hansen, Carson District Recreation Officer at: brian.c.hansen@usda.gov.

Sincerely,

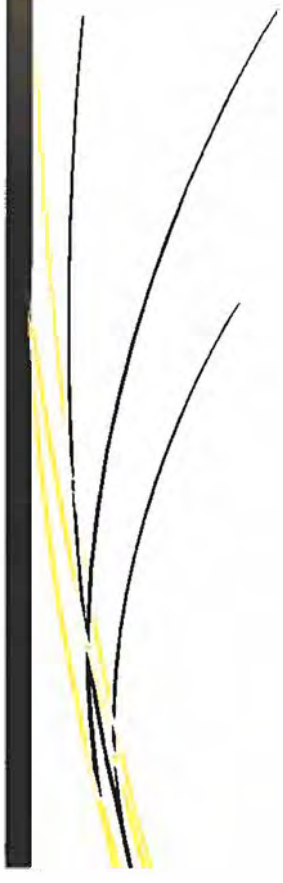
MATTHEW ZUMSTEIN Digitally signed by MATTHEW ZUMSTEIN Date: 2024.02.01 16:20:12 -08'00'

MATHEW D. ZUMSTEIN
District Ranger

Friends of Nevada Wilderness

Audited Financial Statements

December 31, 2022



Jackson & Jackson CPAs, Ltd.
Certified Public Accountants

Friends of Nevada Wilderness
Table of Contents
December 31, 2022

J2 Jackson & Jackson CPAs Ltd.
1755 E. Plumb Ln., Suite 100, Reno NV 89502 (775) 360-5910

Independent Auditor's Report

To the Board of Trustees of
Friends of Nevada Wilderness

Opinion

We have audited the accompanying financial statements of Friends of Nevada Wilderness (a nonprofit organization), which comprise the statement of financial position as of December 31, 2022, and the related statements of activities, functional expense and cash flows for the year then ended, and the related notes to the financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Friends of Nevada Wilderness as of December 31, 2022, and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of ABC Organization and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Friends of Nevada Wilderness ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

Exercise professional judgment and maintain professional skepticism throughout the audit.

Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Friends of Nevada Wilderness internal control. Accordingly, no such opinion is expressed.

Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Friends of Nevada Wilderness ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Jackson & Jackson CPAs, Ltd.

Jackson & Jackson CPAs, Ltd.

Reno, Nevada
October 16, 2023

FRIENDS of NEVADA WILDERNESS

Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2024

Budget Item Description	Truckee River Fund	Match Source	Match Amount	Total
Payroll Expenses	$19,750	National Forest Foundation	$3,500	$23,250
Volunteer Labor (288 hrs at $20/hr)		In-Kind Volunteer Labor	$5,760	$5,760
Project Supplies	$4,250			$4,250
Training Expenses	$200	Individual Donations	$500	$700
Vehicle Travel (150 miles at $0.67/mile)	$101			$101
Volunteer Food	$200			$200
Subtotal	$24,501		$9,760	$34,261
Overhead (at 10%)	$2,450			$2,450
TOTAL	**$26,951**	**TOTAL**	**$9,760**	**$36,711**

Budget Narrative:

Payroll Expenses: Payroll expenses include all project planning, facilitation, data entry, program oversight, as well as follow-up, volunteer recruitment, outreach and communications, GIS, and Truckee Meadows Weed Coordinating Group meetings.

Volunteer Labor: 5 volunteer weed removal projects with 8 volunteers each for 6 hours at $20 in-kind/hr; 2 volunteer re-seeding projects with 4 volunteers each for 6 hours at $20 in-kind/hr. Total of 48 volunteers. Total of 288 volunteer hours at $20/hr for an in-kind total of $5,760.

Project Supplies: Used to purchase native seed mix (averaging $4000-$4250). Any additional supply funds will help cover the costs of routine gear replacement for first aid kits, shovel replacement, maintenance, etc.

Training Expenses: This will cover relevant classes and conferences, including a portion of the Wilderness First Aid training for our staff. In addition, we will continue to update our invasive weed reference materials for staff/volunteers.

Vehicle Travel: This portion accounts for the use of a company vehicle as well as mileage reimbursement for distances driven with personal vehicles. The mileage rate is calculated at the 2024 Federal Rate of $0.67/mile.

Volunteer Food: Accounts for volunteer food such as trail snacks and our end-of-season volunteer appreciation event.

Overhead: Our overhead costs are billed across all of our grants at a 10% de minimis rate. These costs are used to pay for rent, utilities, storage costs, small office supplies and subscriptions (Microsoft, Adobe, Google, etc), and safety equipment, such as our Garmin In-Reach service. These costs are essential to the functionality of all of our programs and are not used to pay for any employees or programmatic supplies.

TRF #291 Independence Lake Forest Resilience Project

Truckee River Fund- Spring 2024

The Nature Conservancy

Jennifer Morris
639 Isbell Road
Suite330
Reno, NV 89509
O: 775-446-5426

Kristen McInnis

639 Isbell Road
STE 330
Reno, NV 89509
kristen.mcinnis@tnc.org
O: 775-322-4990

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
The Nature Conservancy - Nevada Chapter

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

53-0242652

Director of Organization*
Mauricia Baca

Project Contact Name*
Heather Giger

Project Contact Postion/Title*
Land and Stewardship Strategy Director

Project Contact Email*
heather.giger@tnc.org

Project Contact Phone Number*
775-453-0903

Organization Mission*
The Nature Conservancy's mission is to conserve the lands and waters on which all life depends. Founded in 1954, The Nature Conservancy (TNC) has chapters in all 50 U.S. states and works in more than 80 countries around the world.

The year 2024 is TNC's 40th year working in Nevada. In the Silver State, we focus our efforts on resilient lands, waters and communities, as well as climate action. Our work in Nevada includes important historic projects like the protection of Red Rock National Conservation Area and Ash Meadows National Wildlife Refuge and the restoration of 11 miles of the Truckee River, as well as our current work providing science to support the preservation and management of groundwater across the state for people and nature; promoting the healthy management of forests within the Truckee River's headwaters; and sharing science to guide land management agencies, policy makers, and industry to site green energy development in ways that work for communities and nature.

Our work in Nevada is part of TNC's ambitious 2030 goals which aim to address the dual existential crises of climate change and biodiversity loss. Our work on the ground in Nevada is a part of TNC's efforts by 2030 to:
- Remove or sequester 3 gigatons of carbon
- Help 100 million people who are most likely to be affected by climate change-related emergencies like fire, flood and drought
- Conserve 650 million hectares of healthy lands - an area twice the size of India
- Conserve 1 million kilometers of river and 30 million hectares of lakes and wetlands, and
- Support economic opportunities for 45 million people who rely on ocean, freshwater and lands for their livelihoods and well being.

Just like our colleagues around the world, in Nevada we work closely with communities, with the people who rely on land and water for their livelihoods, with policy makers and government staff, and with the Tribes who are the original caretakers of the land. We use science-based solutions and collaboration to work across divides to solve problems that impact people and nature, helping to make the open spaces, the water and the air we all need healthier.

TNC's Nevada Chapter is proud to have been partners with the Truckee River Fund since 2008. Together we have created a vision for forest restoration at the Truckee's headwaters and implemented forest management across hundreds of acres. TNC's current grant from TRF is coming to a close in spring 2024 and we are grateful for the opportunity to apply for funding to continue to work on healthy forests that protect the water that the Reno/Sparks community relies upon.

Please note that The Nature Conservancy's Nevada Chapter is part of The Nature Conservancy, the world's largest environmental nonprofit organization. While The Nevada Chapter hosts its own Board of Trustees and has an operating budget specific to Nevada, some documents, such as the 990 and the audited financial statements, are managed at the tax ID level and represent the financial outlook of the entire organization. All funds (past and future) from The Truckee River Fund to The Nature Conservancy have been applied exactly as proposed, supporting only the project described. Please reach out to Kristen McInnis, Director of Development, at kristen.mcinnis@tnc.org or (775) 446-5426 for any additional information or clarification about our organizational structure.

Project Information

Project Title*
Name of Project.

TRF #291 Independence Lake Forest Resilience Project

Amount Requested*
$183,610.00

Project Start Date*
05/01/2024

Project End Date*
06/30/2026

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

This funding will be used to implement mechanical forest thinning treatments on The Nature Conservancy's Independence Lake Preserve to increase forest health and resiliency while reducing the risk of catastrophic wildfires that remove vegetation, increase soil erosion, and threaten water quality in the Truckee River and surrounding watershed.

This project is on:*
Check all that apply

Private land

Are government permits or decision documents needed for the project?*
Yes

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Yes

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*

Yes

If yes, please include the following information for all previously funded projects:

- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

June 2008
#50 Independence Lake Forest Management Plan
$39,668

June 2008
#51 Independence Lake Public Access Management Plan
$45,510

November 2008
#63 Independence Lake- Forest and Wildfire Management Plan Implementation
$237,110

May 2010
#74 Independence Lake Forest and Wildfire Management
$50,000

October 2010
#78 Independence Lake Woody Fuels Reduction for Fire Resilience-Year 3
$60,000

September 2011
#88 Preventing Aquatic Invasive Species at Independence Lake
$28,290

August 2012
#106 Independence Lake Woody Fuels Reduction for Fire Resilience
$30,000

February 2013
#117 Forest Thinning around Independence Lake
$41,300

September 2014
#147 Optimizing Restoration Investments in the Truckee River Watershed
$50,000

March 2017
#187 Landscape Conservation Forecasting (LCF) for the Truckee River Watershed
$60,000

September 2018
#208 Truckee River Watershed Forest Restoration
$57,826

August 2019
#227 Truckee River Watershed Forest Restoration and Community Outreach, Phase 2
$265,600

July 2022
#263 Developing Forest Resilience to Fire – Independence Lake
$100,450

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*

Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

A.)
E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

The project goal is to improve the resiliency of the forest adjacent to Independence Lake to wildfire and sediment transport through erosion and de-vegetation.

Our measurable outcome is to mechanically thin stands across 43 acres to reduce fuel loads in these through significantly reduced tree density.

We will document the thinning through pre- and post-treatment stand metrics, including photo and drone footage that can be included in grant reporting and/or future presentations.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

Independence Lake Preserve is located about 10 miles northwest of Truckee, California in Sierra and Nevada Counties at the headwaters of Independence Creek, a tributary to the Little Truckee River. The Preserve property consists of approximately 2,325 acres of forest lands surrounding 680 acres of lake. Independence Lake contributes to the water supply for the greater Reno/Sparks area. Water rights are held by the Truckee Meadows Water Authority (TMWA), and periodic releases are made to maintain a minimum instream flow downstream from the lake.

Independence Lake Preserve is one of the most pristine areas in the northern Sierra Nevada. The lake is surrounded by conifer forest, montane chaparral, aspen groves, and meadows. Independence Lake is the only lake in the Lahontan drainage (the watersheds of the Carson, Humboldt, Truckee, and Walker Rivers) that still has a full complement of native fishes. It is also the only lake in the Sierra Nevada or anywhere in California that supports a wild and self-sustaining lake population of the federally threatened Lahontan cutthroat trout (LCT). TNC manages the preserve for the conservation of both the aquatic and terrestrial ecosystems, as well as limited public recreation that includes hiking, kayaking, boating, and fishing.

The legal description of the property is as follows: Portions of Sections 33, 34, and 35, T19N, R15E, and Sections 2, 3, 4, 5 and 9, T18N, R15E, MDB&M, Sierra and Nevada County, CA. The property is located at latitude 39° 26’ 57” degrees north and longitude -120° 18’ 05” degrees west. Refer to the attached maps for additional location details.

3.) Project Description*

Maps and Letter of Support.pdf

The proposed project is a continuation of previous forest health improvement work that has been funded in part through Truckee River Fund (TRF) grant awards, including the 2022 “Developing Forest Resilience to Fire at Independence Lake” project, which is still active and anticipated to be completed during the 2024 field season.

The California Department of Forestry and Fire Protection (Cal Fire) awarded TNC a $2 million grant in 2020. Nearly $1 million of the funding is still available for continued forest improvement and restoration work at Independence Lake. The $183,610 in TRF funding being requested through this proposal would complement the Cal Fire grant and allow for an entire unit of 270 acres to be treated. Specifically, this grant would provide funding to assist with implementation of 43 acres ($3,500 per acre) of mechanical forest thinning treatments in the T-4 Treatment Unit (refer to attached map) which is located northeast of the lake. The Cal Fire funding will be used to match TRF funds (18 acres of treatment) as well as leveraged to treat an additional 209 acres to finish thinning of the unit. Work will be implemented under the approved Timber Harvest Plan (also attached) by a Licensed Timber Operator contracted and supervised by TNC.

Continued forest management is crucial to the preservation of Independence Lake. While fire adapted forests of California were once characterized by large, widely spaced trees and periodic, mixed-severity fires, the forests are no longer fire adapted and are instead dominated by dense thickets of small trees and brush with little to no regenerative fire. Experts estimate that up to 10 million acres of forested land in California alone need some form of treatment over the next twenty years (e.g. ecological thinning, prescribed fire) to restore

their health and resiliency. Without these strategic interventions, we risk losing the many benefits healthy forests provide -- such as the provisioning of clean water and the sequestration of atmospheric carbon -- to large and high-severity megafires.

Recent events in California and Nevada forests, such as the drought induced death of more than 129 million trees over three years (2015 – 2017) and a significant increase in the number of large wildfires are clear indications that our forests need careful and active stewardship that is grounded in science and guided by ecological principles. To assist in determining the forest stewardship needs of Independence Lake, a burn probability analysis was conducted by Edward Smith, TNC Senior Forest Ecologist and Charlotte Stanley, TNC Spatial Data Analyst. The results predict that the likelihood of wildfire is moderate to high in the forests surrounding Independence Lake as depicted on the attached map of burn probability. Without continued forest health treatments at Independence Lake wildfires pose a significant threat to the forests and therefore to the Truckee River watershed. This project will contribute to mitigating those risks and will benefit not just Independence Lake, but also the surrounding watershed and water quality of the Truckee River system.

Attached here are project maps and letters of support from our partners.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

This project falls within Truckee River Fund's Re-forestation and Re-vegetation Project Priority. The project will improve the resiliency of the forest to wildfires and climate change, while reducing the risk of catastrophic wildfire near the lake that would result in increased erosion and sedimentation with negative impacts to water quality and aquatic habitat.

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

Independence Lake THP #2_r_Part1.pdf
The proposed forest treatments have already been permitted under the Timber Harvest Plan approved by Cal Fire (see attached). No additional required permits are anticipated. Permitting costs have not been included in the project budget.

Our permitting documents are larger than the allowable 5MB. They have been submitted via email to the Northern Nevada Community Foundation program officer who is the contact for the application and are available for review. Attached here are the first 94 pages of the 216 page document.

The entire document is also available here: https://tnc.box.com/s/0jr2b6coaro5pjkpp73du3ka4g3qjq1y

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

None. Independence Lake Preserve is owned and operated by TNC. There will be no changes to the land use in the foreseeable future.

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

Future funding will likely be needed for continued forest health maintenance. Anticipated funding sources include Cal Fire, Sierra Nevada Conservancy, and the Middle Truckee River Watershed Forest Partnership.

8.) Identify the principals involved in leading or coordinating the project or activity.*

Principals for TNC include:
Edward Smith, Senior California Forest & Fire Scientist
Christoffer Sega, Nevada Stewardship Manager
Katie Pofahl, California Project Manager
Heather Giger, Nevada Protection & Stewardship Strategy Director
Michael Riney, California Stewardship Project Manager
TNC support staff involved in the project include Fire Program Management Staff, a Senior Finance & Grants Manager, and a Senior Attorney.

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

5 part-time staff. A minimum of five TNC staff will dedicate part of their time to Independence Lake Forest Resilience project implementation.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

0 – Due to the technical, and potentially dangerous, nature of the project work, TNC will not be using volunteers.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

Project work is anticipated to begin in the summer of 2024 and conclude prior to the onset of heavy winter snows. The timeline is variable due to uncontrollable weather and site conditions, and will be dependent on the ability for contract crews and equipment to access Independence Lake following the winter of 2023-2024. While the majority of the project work is anticipated to be completed during 2024, TNC has requested a longer award period as a safeguard against unforeseen delays – early winter conditions, equipment failures, etc.

12.) What factors will indicate a successful project?*

The success of our project will be demonstrated by the following factors:
1) TNC will have thinned at least 61 acres in the T-4 Unit (refer to attached Treatment Unit map) as directly funded through this proposal
2) TNC will have completed thinning operations on the entire T-4 Unit – a total of 270 acres, and
3) TNC will have conducted pile and prescribed burns (not part of this funding request) as part of the next phase of forest health improvement activities.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

Cal Fire is a key partner for the proposed Independence Lake Forest Resilience Project. Matching funds will be provided from a grant approved by Cal Fire as part of a larger forest health improvement project at Independence Lake. Cal Fire has awarded TNC nearly $1 Million in funds to continue forest thinning and prescribed burning operations through 2024. Cal Fire will also assist with oversight of project operations and Timber Harvest Plan review.
Additionally, the Nevada Chapter of TNC will work in close collaboration with the California Chapter of TNC to manage timber harvesting contractor(s) and oversee the Licensed Professional Forester hired by TNC to monitor project work and forest health. Utilizing the staff of both TNC chapters will ensure the best coverage of project needs and timely implementation.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$63,000.00

Cash

$63,000.00

For the cash portion, is the funding already being held by the applicant for this project?

Yes

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$0.00

Description of matching funds/in- kind donations.*

Matching funds are from a Cal Fire grant secured by our partners on this project, The Nature Conservancy's California Chapter. A grant from the Truckee River Fund will both help us to complete the total project envisioned by the Nevada and California Chapters and will leverage this $1M grant from Cal Fire.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

Org Attachments.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*

- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

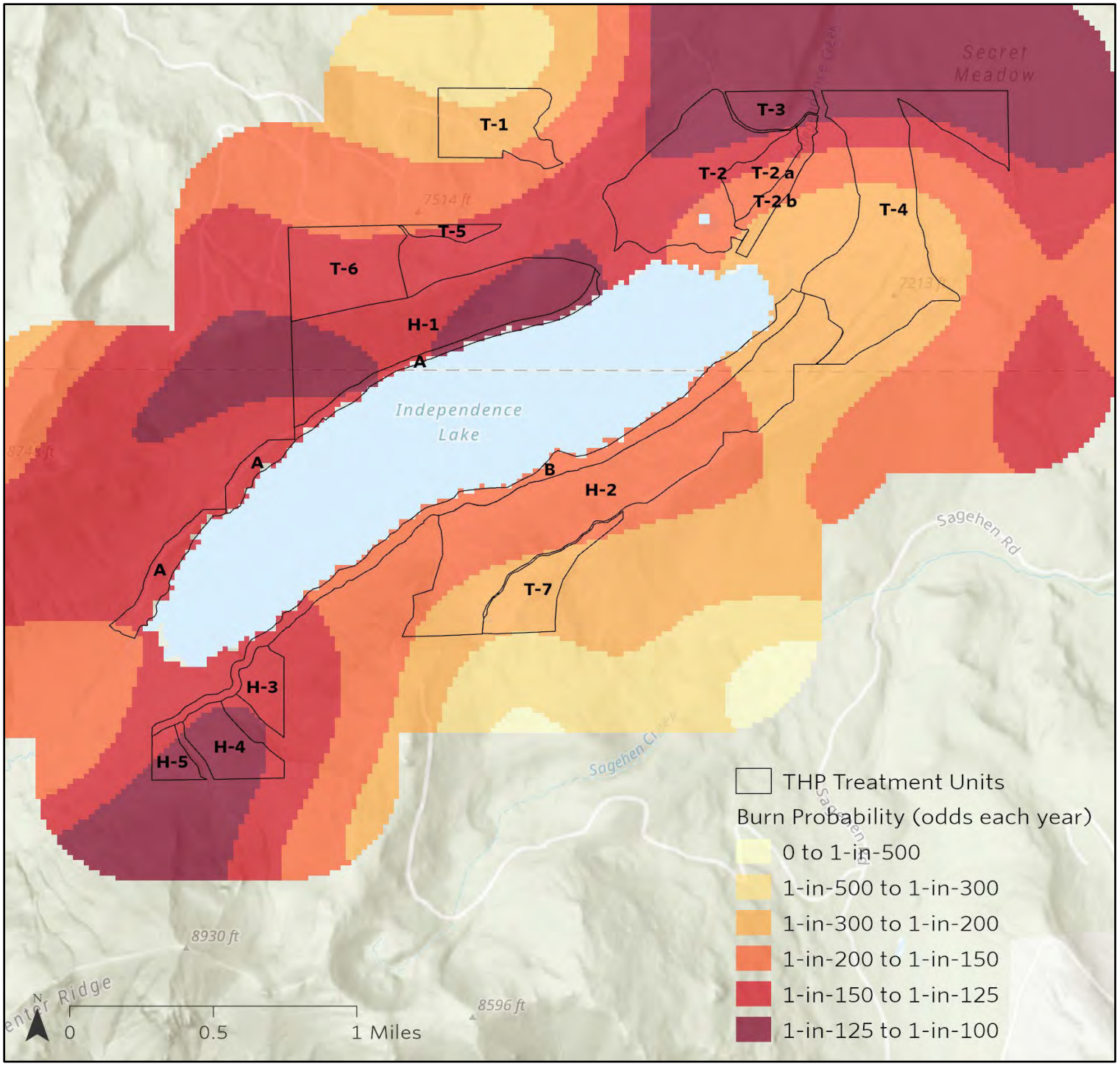
I-Lake FY 2024 TRF Forest Health Application BUDGET.pdf

File Attachment Summary

Applicant File Uploads

- Maps and Letter of Support.pdf
- Independence Lake THP #2_r_Part1.pdf
- Org Attachments.pdf
- I-Lake FY 2024 TRF Forest Health Application BUDGET.pdf

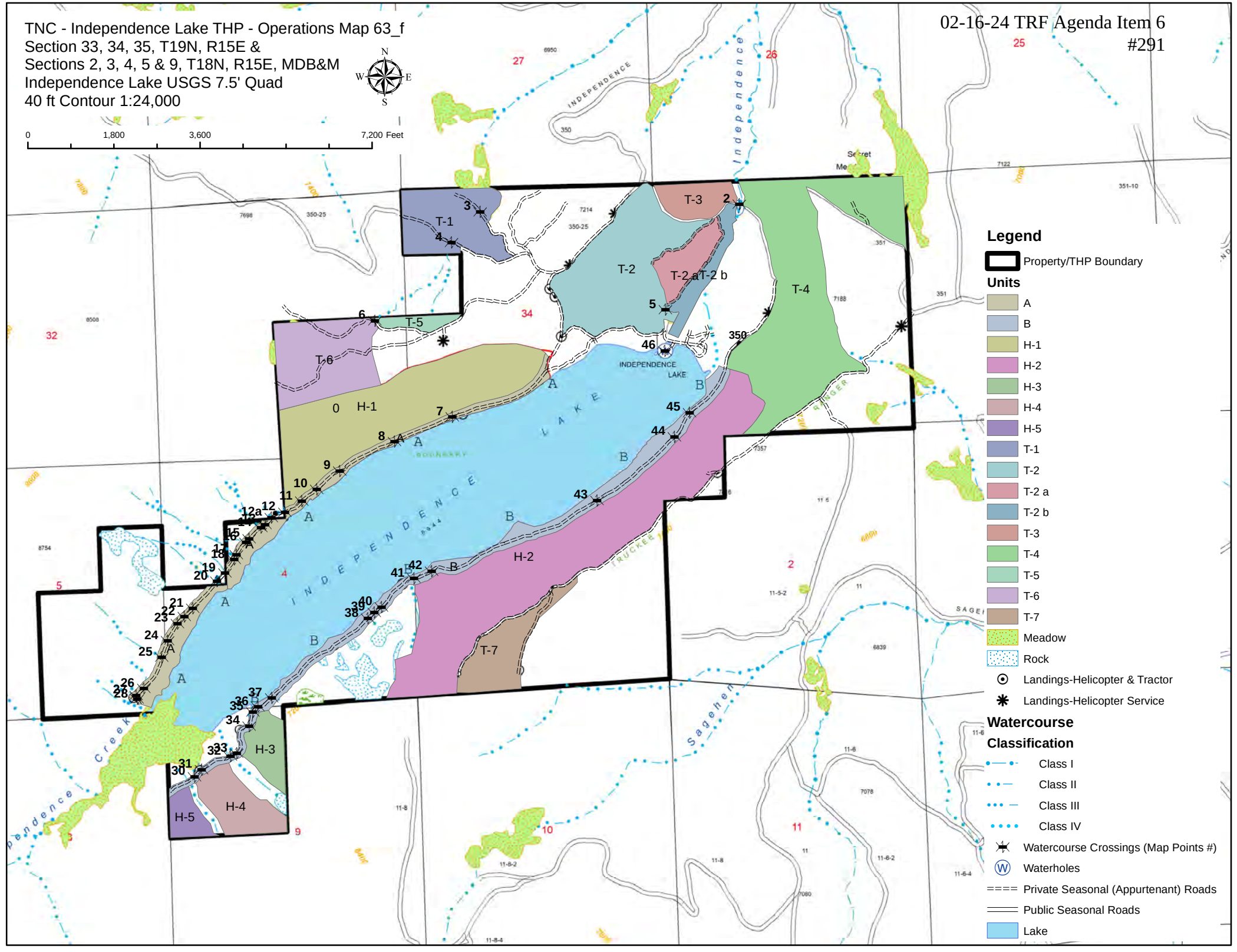
Figure 1. Burn Probability for Lands around Independence Lake.



TNC - Independence Lake THP - Operations Map 63_f
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
40 ft Contour 1:24,000

0 1,800 3,600 7,200 Feet

02-16-24 TRF Agenda Item 6
#291



foriver
TRUCKEE RIVER WATERSHED COUNCIL

February 2, 2024

Truckee River Fund
C/O Community Foundation of Northern Nevada
50 Washington Street, #300
Reno, NV 89503

To Whom It May Concern:

The Truckee River Watershed Council is pleased to offer our support to The Nature Conservancy's Nevada Chapter in its application to the Truckee River Fund.

As a member of the Middle Truckee River Watershed Forest Partnership, we work closely with TNC's Nevada Chapter to effectively manage the forest and improve ecological conditions along the Truckee.

While the project that the Nevada Chapter is proposing is upstream of our partnership boundaries, we urge The Truckee River Fund to support this request. The forest along the entire river needs active management and treatment for its health and the health of the entire watershed.

Thank you for your consideration, please reach out to me directly if you have any questions.

Sincerely,

Eben Swain, Project Director

Truckee River Watershed Council

530.550.8760
P.O. Box 8568
Truckee, CA 96162
www.truckeeriverwc.org

NOTICE OF INTENT TO HARVEST TIMBER

A Timber Harvesting Plan (Plan) or Amendment has been submitted to the California Department of Forestry & Fire Protection (CAL FIRE). CAL FIRE will be reviewing the proposed timber operation for compliance with State law and rules of the Board of Forestry and Fire Protection. The following briefly describes the proposed timber operation and where and how to get more information. In accordance with the timeline stated under Public Resources Code Section 4582.7, you may submit written public comments on the Plan or Amendment for CAL FIRE to consider.

This notice applies to (select one): ☒ New Timber Harvesting Plan ☐ Amendment Approved Timber Harvesting Plan

Applicant Information (Timberland Owner(s), Registered Professional Forester who prepared the plan and Plan Submitter should match those listed in the plan or amendment.)

1. The name(s) of the Timberland Owner(s) where timber operations are to occur: **The Nature Conservancy**

2. Registered Professional Forester who prepared the plan or amendment: **Kevin Whitlock**

   Registered Professional Forester Phone (optional): **(530) 470-6115 (530) 559 0901**

3. The name of the Plan or Amendment Submitter: **Scott Morrison - The Nature Conservancy**

Project Summary (County, legal description, acres proposed to be harvested and treatments to be used should match those listed in the plan or amendment.)

4. Location of the proposed timber operation (county, legal description, approximate direction & approximate distance of the timber operation from the nearest community or well-known landmark): **Sierra County, in a portion of Sections 33, 34, and 35, T19N, R15E., and Nevada County, portions of Sections 2, 3, 4, 5, and 9, T18N, R15E., MDB&M. The project is located approximately nine miles north - northwest of Truckee, California, at Independence Lake.**

5. The name of, and distance from, the nearest perennial stream and major watercourse flowing through or downstream from the timber operation: **Independence Lake – Upper Independence Creek and Independence Creek flow through the project area. Tributaries to Sagehen Creek are adjacent to the project area.**

6. Acres proposed to be harvested: 1,271

7. The regeneration methods and intermediate treatments to be used:

Alternative Prescription - Selection with Sanitation and Salvage (1,271 Ac). The Alternative Prescription will meet 14 CCR 933.2(a)(2){A)(2) immediately upon completion of operations. On Site II and III lands at least 75 square feet per acre of basal area shall be retained. The residual stand shall contain sufficient trees to meet at least the basal area. size and phenotypic Quality of_ tree requirements specified under the seed tree method.
Retention of at least fifteen (15) square feet basal area on site I, II and III lands of seed trees per acre which are 18 inches dbh or greater.

POWERLINES: 14 CCR 1032.7(d)(10) & (e) (provide name and mailing addresses of the utilities for department distribution)

8. ☐ Yes ☒ No Overhead electrical power lines within the plan boundary? (except lines from transformers to service panels)
9. ☐ Yes ☒ No Overhead powerlines within 200 feet outside the plan boundary?

Public Information: The review times allowed for CAL FIRE to review the proposed timber operation are variable in length, but limited. To ensure CAL FIRE receives your comments please read the following:

The estimated earliest possible date CAL FIRE may **APPROVE** the Plan or Amendment is: _____
(This date is 15 calendar days from receipt of the Plan or Amendment by CAL FIRE, except in counties for which special rules have been adopted where the earliest date is 45 calendar days after receipt.)

NOTE: THE ESTIMATED EARLIEST APPROVAL DATE IS PROBABLY NOT THE ACTUAL APPROVAL DATE. Normally, a much longer period of time is available for public comment and preparation of CAL FIRE's responses to public comments. Please check with CAL FIRE, prior to the above listed date, to determine the actual date that the public comment period closes.

The public may review, or purchase a copy of, the Plan or Amendment at the CAL FIRE Review Team Office shown below. The cost to obtain a copy is 37 cents for each page, $2.50 minimum per request. The cost to obtain a copy of this plan or amendment is: _____
(to be completed by CAL FIRE upon receipt of plan).

Questions or concerns regarding this plan should be directed to the CAL FIRE Review Team Office shown below or emailed to **ReddingPublicComment@fire.ca.gov** for incorporation into an Official Response Document. Please include the plan number on all correspondence.

Forest Practice Program Manager
CAL FIRE
6105 Airport Road
Redding, CA 96002
(530) 224-2445

The plan may be viewed online at https://caltreesplans.resources.ca.gov/caltrees/ **A map showing the approximate boundary of the THP area, a map legend, and a scale is attached to help in locating where the proposed timber operation is to occur.**

For CAL FIRE Use Only

Timber Harvest Plan Number: Date of Receipt:

TIMBER HARVESTING PLAN

FOR ADMIN. USE ONLY

1._____ 8._____
2._____ 9._____
3. _____ 10._____
4. _____ 11._____
5._____ 12._____
6._____ 13._____
7._____ 14._____

STATE OF CALIFORNIA
DEPARTMENT OF FORESTRY
AND FIRE PROTECTION
RM-63 (06-2018)

THP Name: Independence Lake #2

- If this is a MODIFIED THP [☐]
- Is this a MODIFIED THP for FUEL HAZARD REDUCTION [☐]
  If THP is any one of the modified types above complete appropriate modified checklists at end of general section

FOR ADMIN. USE ONLY

THP No. _____
Date Rec'd:_____
Date Filed _____
Date Approved_____
Date Expires _____

Extension: [ ] Am #_____

This Timber Harvesting Plan (THP) form, when properly completed, is designed to comply with the Forest Practice Act (FPA) and Board of Forestry and Fire Protection rules. All rule references are from Title 14 CCR; when cited, the form text will only make reference to the rule number itself. The THP is divided into six sections. See separate instructions for information on completing this form. NOTE: The form must be printed legibly in ink or typewritten, an online version is available at _____. Additional space may be inserted, as needed, to provide required information. Please distinguish answers from questions by *font change*, **bold** or underline.

SECTION I - GENERAL INFORMATION

This THP conforms to my/our plan and upon approval, I/we agree to conduct harvesting in accordance therewith. Consent is hereby given to the Director of Forestry and Fire Protection, and his or her agents and employees, to enter the premises to inspect timber operations for compliance with the Forest Practice Act and Forest Practice Rules.

1. REGISTERED PROFESSIONAL FORESTER:

   I have read and understand my responsibility as RPF, as described under 14 CCR § 1035.1(a)-(g). I agree to fulfill my responsibilities as an RPF as they pertain to this plan.

   [X] Yes [ ] No I have been retained as the RPF available to provide professional advice to the licensed timber operator and timberland owner upon request throughout the active timber operations regarding: (1) the plan, (2) the forest practice rules, (3) and other associated regulations pertaining to timber operations.

   RPF Signature: _____Lic. No. _____ Date _____

   RPF Printed Name: Kevin Whitlock Phone (530) 274-7390

   Address P.O. Box 363 City Nevada City State CA Zip 95959

   Email: Underthetrees@att.net

2. LICENSED TIMBER OPERATOR(S): Name UNKNOWN Lic. No. _____
   (If unknown, so state. You must notify CAL FIRE, by amendment, of LTO prior to start of operations)

   Address _____

   City _____ State _____ Zip _____ Phone _____

   Email: _____

   Signature: _____

3. TIMBERLAND OWNER(S) OF RECORD: The Nature Conservancy, Scott Morrison, Nevada – California Partnership
   Nevada Field Office—Northern Nevada Office
   One E. First Street, Suite 1007
   Reno, NV 89501
   (775)-322-4990

   Email: _____

   Signature: _____

As Timberland owner listed above, I acknowledge responsibility for the following:

- Achieve adequate stocking of the prescription area as described in the plan and 14 CCR §932.7.
- As per 14 CCR § 934.6 and 14 CCR § 1050 waterbreaks and other erosion control structures must be maintained to remain functional in controlling the flow of runoff during the maintenance period (usually one year). The Director may recommend that this period be increased to three years. The LTO is responsible for proper construction, inspection and maintenance of erosion control structures during the prescribed maintenance period until a work completion report is approved by the Director. The landowner is responsible for inspection and maintenance of these structures and any repairs if needed during the remainder of the prescribed maintenance period. Responsibility for erosion control maintenance may be assumed at an earlier date by the landowner or can be delegated to a third party, providing that the assuming party acknowledges such responsibility in writing to the Director.

- As per 14 CCR § 943.4 all roads including erosion control structures, crossings, etc. shall be maintained to provide adequate drainage of the road surface in a manner that will not degrade the beneficial uses of water for a period of at least one year. The Director may recommend that this period be increased to three years.
- As per 14 CCR § 1042 any change in ownership of land must be reported to the Director of CDF if such a change occurs after a THP has been filed but before a report of satisfactory stocking is issued by the Director. It shall be the responsibility of the timberland owner listed in the plan to notify the Director of a change in timberland ownership. Also, before the passage of title, it shall be the responsibility of the seller to notify the purchaser of the timberland of their responsibility for compliance with the stocking standards of the Act and the rules of the Board of Forestry.

Signature: _____ Date_____

4. TIMBER OWNER(S) OF RECORD: The Nature Conservancy, Scott Morrison, Nevada – California Partnership
Nevada Field Office—Northern Nevada Office
One E. First Street, Suite 1007
Reno, NV 89501
(775)-322-4990

Email: _____

Signature: _____

NOTE: The Timber Owner is responsible for payment of a yield tax. Per State of California Revenue and Taxation Code sections 38104 and 38115. Timber Yield Tax information may be obtained at: Timber Tax Section, MIC: 60, California Department of Tax and Fee Administration, P.O. Box 942879, Sacramento, California 94279-0060. Phone 1-800-400-7115 OR 1-916-274-3330. For Timber Tax information, please see our website at: www.boe.ca.gov/proptaxes/timbertax.htm.

5. PLAN SUBMITTER(S): Name The Nature Conservancy, Scott Morrison, Nevada – California Partnership
The submitter is the person who owns, leases, contracts, or operates on timberland. If the submitter is not identified in (2), (3), or (4), above, an explanation of his/her authority to submit the plan should be provided in Section III. [1032.7(a) and 1034(e)].

Address Nevada Field Office—Northern Nevada Office, One E. First Street, Suite 1007

City Reno State NV Zip 89501 Phone 775-322-4990 Email: _____

Signature: _____

I have read and understand my responsibilities as Plan Submitter as described under 14 CCR § 1035. I certify that I have fulfilled my legal obligation as stated in the forest practice rules and agree to fulfill my responsibility as the plan submitter as it pertains to this plan.

[X] Yes [ ] No I have retained the services of an RPF to provide professional advice to the LTO and timberland owner upon request throughout active timber operations regarding: (1) the plan, (2) the forest practice rules, (3) and other associated regulations pertaining to timber operations.

[ ] Yes [ ] No I have authorized the timberland owner to perform the services of a professional forester, understanding that the services will be provided personally on lands owned by the timberland owner.

Signature _____ Date _____

6. ON-SITE CONTACT: Name Unknown
List person to contact on-site who is responsible for the conduct of the operations. If unknown, so state; name must be provided for inclusion in the THP prior to start of timber operations.

Address _____

City _____ State _____ Zip _____ Phone _____

Email: _____

CalTREES THP GENERAL INFORMATION

ITEM #7 LOCATION OF TIMBER OPERATIONS

a. Legal Description						
Meridian	Township	Range	Section	Acreage	Assessor's Parcel Number	County
MDB&M	19N	**15E**	33	155	019-050-007	Sierra
MDB&M	19N	**15E**	34	265	019-060-005	Sierra
MDB&M	19N	**15E**	35	344	019-060-006	Sierra
MDB&M	18N	**15E**	2	35	016-020-001, 019-060-006	Nevada, Sierra
MDB&M	18N	**15E**	3	267	016-020-001, 016-020-009	Nevada
MDB&M	18N	**15E**	4	88	016-010-005, 016-010-002, 016-010-004	Nevada
MDB&M	18N	**15E**	5	10	016-010-002, 016-010-003	Nevada
MDB&M	18N	**15E**	9	86	16-010-05, 016-010-007	Nevada
			TOTAL AC	1,250		

NOTE: Total Acreage only includes the logging area

FOREST DISTRICT

b. Forest District			
[☐]	COAST FOREST DISTRICT	[☐]	Tahoe Regional Planning Authority Jurisdiction
[☐]	Southern Sub District of the Coast Forest District	[☐]	A County with Special Regulations
[☐]	SOUTHERN FOREST DISTRICT	[☐]	Coastal Zone, no Special Treatment Area (STA)
[☐]	High use Sub District of the Southern Forest District	[☐]	STA(s): Type: Identify:
[X]	NORTHERN FOREST DISTRICT	[☐]	Other:

c. CALWATER PLANNING WATERSHED		
Name	Watershed identification Number	CALWATER Version
Independence Lake	**8636.000203**	**2.2**
Lower Independence Creek	**8636.000201**	**2.2**
Upper Sagehen Creek	**8636.000302**	**2.2**

d. WATERSHED (ASP, 303D)			
[☐]	ASP Watersheds	[X]	Non ASP Watersheds
[☐]	Upstream of ASP Watersheds	[X]	303d Watersheds • Reason listed: **Sedimentation and Siltation**
[☐]	Exempt from ASP Watershed Rules • Reason Exempt:		

e. USGS QUADRANGLE	
Name	Date
Independence Lake	1981
Sierraville	1981
Hobart Mills	1981

CalTREES THP GENERAL INFORMATION

ITEM #8

MODIFIED THP REQUIRED CONDITIONS AND MITIGATIONS

a.	Modified THP
1.[☐]Yes [X] No	Is this THP submitted as a modified THP per 14 CCR § 1051
2.[☐]Yes [X] No	Is this THP submitted as a modified THP for Fuel Hazard reduction per 14 CCR § 1051.3

b.	Timberland Conversion
1.[☐]Yes [X] No	Has a Timberland Conversion been submitted?
	• Permit Number: _____ (if known) or
	• Expected approval date:
2.[☐]Yes [X] No	Has a Timberland Conversion been approved?
	• Permit Number:
	• Approval date:
	• Expiration date:

c.	Demonstration of Maximum Sustained Production (MSP) per 14 CCR § 913.11 (93.11, 953.11).
MSP OPTION	
[☐] (a)	THP Number Option (a) is approved under: _____
	Date Approved: _____
[☐] (b)	Has a Sustained Yield Plan been approved?
	• SYP number:
	• Date Approved:
	Has a Sustained Yield Plan been submitted but not approved?
	• SYP number:
	• Date Submitted:
X] (c)	In this THP. pursuant to 14 CCR 933.11 (c)(2), MSP is achieved by complying with the stocking requirements of the un-even age management, complying with the seed tree retention standards pursuant to 14 CCR 933.1(c)(1)(A), meeting minimum stocking and basal area standards for the selected silvicultural methods as contained in these rules only with group A species, and protecting the soil, air, fish and wildlife, water resources and other public trust resources through the application of these rules. Uneven aged management is utilized to establish and maintain a uneven aged stand structure. Uneven aged management attributes include the establishment and/or maintenance of a multi-aged, balanced stand structure, promotion of growth on leave trees throughout a broad range of diameter classes, and encouragement of natural reproduction.

d.	Conservation Easements / Landowner Assistant programs
1. [☐]Yes [X] No	Is there a conservation easement, existing, for any of the plan area?
	If "YES" provide • Conservation Easement Name: _____ • Who is the easement grantee: (Who holds the easement) _____
2. [☐]Yes [X] No	Is a Conservation Easement proposed or waiting approval for any portion of the plan area?
3. [☐]Yes [X] No	Are there any land owner assistance programs associated for any portion of the propose plan area? If "YES" indicate what land assistance program it is and associated identifying document number and/or name of project.

CalTREES THP GENERAL INFORMATION

e.	Habitat Conservation Plans (HCP) / Natural Communities Conservation Plans (NCCP)
1.[☐]Yes [X] No	Is any portion of the ownership covered by a Habitat Conservation Plan?
[☐] [☐]	Aquatic Terrestrial
2.[☐]Yes [☐] No	
3.[☐]Yes [☐] No	

ITEM #9	Prescribed Maintenance Period
a. [X]Yes [☐] No	Will the Licensed Timber Operator be employed for the construction and maintenance of roads and landings during the conduct of timber operations? If "NO" identify who will be responsible and provide a contact phone number.
	Contact name:
	Phone number:
b. [X]Yes [☐] No	Will the Licensed Timber Operator be responsible for erosion control maintenance after timber operations have ceased and until a work completion report has been certified by the department? If "NO" include a written agreement per 14 CCR 1050(c). Timberland Owner acknowledgement form contains the necessary information and can be included as the written agreement NOTE: Prescribed maintenance periods: • Outside ASP watersheds maintenance period is one year but can be extended 3 years at the Departments discretion. • ASP watersheds the maintenance period is three years Other activities such as stocking, that require the use of roads, crossings, or other features requiring erosion control shall be maintained during that activity even after the prescribed maintenance period has ended.
c. [X]Yes [☐] No	Is it anticipated timber operations will commence on the date of THP conformance as approved by the Department? If "NO" provide an expected date of commencement of timber operations: DATE_____
d. [X]Yes [☐] No	Is it anticipated timber operations will be completed within 5 years from the date of THP conformance? If "NO" provide the expected date timber operations will be completed: DATE_____

ITEM #10	Stocking Adjacent Plans
a. [☐]Yes [X] No	Is there a THP on file with CAL FIRE for any portion of the plan area for which a Report of Satisfactory Stocking has not been issued by CAL FIRE? If "YES" provide THP Number: _____
b. [☐]Yes [X] No	Is there a contiguous even aged unit with regeneration less than five years old or less than five feet tall? If "YES" provide explanation per 14 CCR 913.1 (933., 953.1)(a)(4)

CalTREES THP GENERAL INFORMATION

ITEM #11	Responsibilities / Notifications
a. [X]Yes [☐] No	RPF has notified the Plan Submitter, in writing, of their responsibilities pursuant to 14 CCR 1035 of the Forest Practice Act and Rules. Plan submitter acknowledgement is included on page 2.
b. [X]Yes [☐] No	RPF has notified the timber owner and the timberland owner of their responsibilities for compliance with the Forest Practice Act and Rules and the prescribed maintenance periods and maintenance of erosion control structures. Timberland owner and Timber owner letter in located in Section 5
c. [X]Yes [☐] No	RPF will provide the timber operator with a copy of the portions of the approved THP as listed in 14 CCR 1035(f). If "NO" who is responsible to provide the LTO a copy of the approved THP?
	Who will meet with the LTO prior to commencement of operations to advise of sensitive conditions and provisions of the THP per 14 CCR 1035.2. [☐] RPF [☐] Supervised Designee [X] Both [☐] Other Additional information:
d. [X]Yes [☐] No	Are Archaeological or historical sites within or near the plan area that require protection? NOTE: Archaeological information is CONFIDENTAIL
e. [X]Yes [☐] No	RPF has the following authority and responsibilities for the preparation and administration for the THP and timber operations. (Including both work completed and work remaining to be done. Additional information: As the supervising RPF, I am responsible for the preparation of this THP through approval, the accuracy and completeness of the contents of this plan with the authority to amend the THP for the Plan Submitter. In addition, I have been retained as the RPF to supervise the Timber/Timberland Owners in marking the timber to be harvested, to be available to provide professional advice to the licensed timber operator and timberland owner upon request throughout the active timber operations regarding; the plan, the forest practice rules, and any other associated regulations pertaining to timber operations. The RPF or his supervised designee will be present, on the logging area at a sufficient frequency to know the progress of the operations and advise the LTO and timberland owner, but not less than once during the life of the plan.
f. [X]Yes [☐] No	RPF has been retained by the plan Submitter to provide professional advice to the LTO and timberland owner upon request throughout the active timber operations regarding the THP, the Forest Practice Rules, and other associated regulations pertaining to timber operations per 14 CCR 1035(d)(1) RPF acknowledgment included on page 1.
	Describe additional required work requiring an RPF, which the RPF submitting this proposed THP does not have the authority or responsibility to perform.

CalTREES THP GENERAL INFORMATION

ITEM #12	**Notice of Intent (NOI)**
Per 14 CCR 1032.7(c)(1-5) The RPF preparing the THP shall submit to the Director, with the THP, a Notice of Intent (NOI) to harvest timber if: (1) Any proposed boundary lies within 300 feet of any property not owned by the timberland owner, or (2) Plan amendments that change plan boundary so that new boundaries are within 300 feet of property not owned by the timberland owner. (3) Plan amendments change the silvicultural method if a notice was required for the Plan by condition (1) or (2) above. (4) Any overhead electrical power line, except a line from a transformer to a service panel, is present within the plan area or within 200 feet outside the Plan boundary, or (5) Plan amendments change a plan boundary so that the overhead electrical power line, except a line from a transformer to a service panel, is within the new boundary area or within 200 feet outside the Plan Boundary.	
a. [X]Yes [☐] No	Is a Notice of Intent necessary for this THP? If "YES" include the NOI with the THP as a separate form with the THP
b. [X]Yes [☐] No	I understand the NOI is to be posted prior to submitting the THP and I will post the NOI at the conspicuous location near the project location prior to submitting this proposed THP.

ITEM #13	Statement of Environmental Impact
After considering the rules of the Board of Forestry and Fire Protection and the mitigation measures incorporated in this THP, I the Registered Professional Forester, have determined that the timber operations (mark all that apply)	
a. [☐]	WILL HAVE A SIGNIFICANT adverse effect on the environment. Provide a statement of reasons for overriding considerations in SECTION III.
b. [X]	WILL NOT HAVE A SIGNIFICANT adverse impact on the environment.
[X]	I certify that I, or my supervised designee, personally inspected the THP area, and this plan complies with the Forest Practice Act, the Forest Practice Rules and the Professional Foresters Law.

Signature _____ Date _____

CalTREES THP ITEM #14 - SILVICULTURE

ITEM #14 – SILVICULTURE

- Check the Silvicultural methods or treatments allowed by the Forest Practice Rules to be applied under this THP.
- If more than one method or treatment will be used identify the boundaries on a map per 14 CCR § 1034(x)(2)
- List the approximate acreage for each method identified.

a.	Evenaged	ACRES	
[☐]	Clearcutting		**EVENAGED REGENERATION METHODS (14 CCR § 913.1 [933.1, 953.1]) (All Districts)** **NOTE: variation by District in (a)(4)(A) and (d)(3) Shelterwood Removal Step**
[☐]	Seed Tree Seed Step		
[☐]	Seed Tree Removal Step		
[☐]	Shelterwood Preparatory Step		
[☐]	Shelterwood Seed Step		
[☐]	Shelterwood Removal Step		
	Un-evenaged		**UNEVENAGED REGENERATION METHODS (14 CCR § 913.2 [933.2, 953.2]) (All Districts)** **NOTE: variation by District in (a)(2)(A)(1)**
[☐]	Selection		
[☐]	Group Selection		
[☐]	Transition		
	Intermediate Treatments		**INTERMEDIATE TREATMENTS (14 CCR § 913.3 [933.3, 953.3])**
[☐]	Commercial Thinning		
[☐]	Sanitation Salvage		
	Alternative		**ALTERNATIVE PRESCRIPTIONS (ALL DISTRICTS) (14 CCR § 913.6 [933.6, 953.6])**
[X]	Alternative Prescription	**1,250**	
	Special Prescriptions		**SPECIAL PRESCRIPTIONS (14 CCR § 913.4 [933.4, 953.4])** RPF is required to include specific information when Restoration or Oak woodland management is selected. The FPR element forms are provided at the end. Indicate the specific acreage for each type of restoration or oak area on these forms.
[☐]	Special Treatment Area Prescription		
[☐]	Rehabilitation of Understocked Area Prescription		
[☐]	Fuel Break / Defensible Space		
[☐]	Variable Retention		
[☐]	Restoration – Aspen, Meadow, & Wet Area		
[☐]	Ca. Black and Oregon White Oak Woodland Management		
	Non-regeneration		**NON REGENERATION HARVESTING**
[☐]	Conversion		
[☐]	Road Right-of-way		
[☐]	No Harvest		

TOTAL ACREAGE:		**If acreage is different than acreage listed in the legal description provide explanation:**

If Selection, Group Selection, Commercial Thinning, Sanitation Salvage or Alternative methods are selected the post-harvest stocking levels must be stated. If Site class varies then state the post-harvest stocking standard to be meet by each applicable Site Class.

NOTE: Location of boundaries of timber-site classes needed for the determination of stocking standards to be applied, down to 20-acres minimum or as specified in district rules shall be mapped per 14 CCR § 1034(x)(12)

CalTREES THP ITEM #14 - SILVICULTURE

b.	**POST-HARVEST STOCKING TO BE MET AT THE COMPLETION OF OPERATIONS**	
Silvicultural Prescription	**Site Class (I, II, III, IV, V)**	**Post-harvest stocking standard**
Alternative Prescription - Selection with Sanitation and Salvage **This is primarily a fuel reduction, thinning from below project.**	**II, III,**	**In this THP. pursuant to 14 CCR 933.11 (c)(2), MSP is achieved by complying with the stocking requirements of the un-evenage management, complying with the seed tree retention standards pursuant to 14 CCR 933.1(c)(1)(A), meeting minimum stocking and basal area standards for the selected silvicultural methods as contained in these rules only with group A species, and protecting the soil, air, fish and wildlife, water resources and other public trust resources through the application of these rules.** **Unevenaged management is utilized to establish and maintain an unevenaged stand structure. Unevenaged management attributes include the establishment and/or maintenance of a multi-aged, balanced stand structure, promotion of growth on leave trees throughout a broad range of diameter classes, and encouragement of natural reproduction.** **Depending on Site Class, the Alternative Prescription will meet either 14 CCR 933.2(a)(2)(A)(2) or 933.2(a)(2)(A)(3) immediately upon completion of operations. The residual stand shall contain sufficient trees to meet at least the basal area, size, and phenotypic quality of tree requirements specified under the seed tree method.** • **14 CCR 933.2(a)(2)(A)(2) On Site II and III lands at least seventy-five (75) square feet per acre of basal area shall be retained.** **Per 14 CCR 933.1 (c)(1)(A)) Retention of at least the following basal area of seed trees per acre which are 18 inches dbh or greater:** **1. Fifteen square feet basal area on site I, II and III lands and** **The seed trees must be of full crown, capable of seed production and representative of the best phenotypes available in the preharvest stand.**

c.	**EVENAGED REGENERATION SIZE**
[☐]Yes [X] No	Will evenaged regeneration step Units be larger than those specified in the rules? [☐] 20 acres TRACTOR [☐] 30 acres AERIAL or CABLE **If YES is the RPF proposing:** [☐] An increase to evenaged TRACTOR Units to 30 acres because Erosion Hazards Rating is Low and the slopes are less than 30% [☐] An increase to any evenaged harvest unit up to 40 acres **If YES provide substantial evidence that the THP contains measures to accomplish any one of the subsections per 14 CCR § 913.1 [933.1, 953.1] (a)(2)(A) – (E) In SECTION III** **Operational Instruction to the LTO, needed to meet subsections (A) – (E) above shall be included in SECTION II** **NOTE: Oversized Units should be designated on the THP map(s) by size.**

Operational instructions to the LTO:

CalTREES THP ITEM #14 - SILVICULTURE

d.	**TIMBER MARKING**			
In the table below indicate the area requiring tree marking, the method of marking, who completed the marking and if it was an entire or sample area mark.				
Marking completed in (specify Location(s))	**Trees Marked** (Harvest / Retained)	**Completed By** (RPF / Designee)	**Area Marked** (Entire / Sample area)	**RPF Explanation if needed** (Optional)
NW1/4, NE1/4, Sec 35, T19N, R15E, MDB&M	**Harvest**	**RPF & Designee**	**Sample Area - A sample mark of at least 10% of the area will be marked prior to the Pre-Harvest Inspection (PHI). The remaining project area will be marked concurrently with timber operations, but prior to timber operations in the immediate area to ensure adequate RPF presence during timber operations**	**All trees 12" DBH and larger targeted for harvested will be marked above and below the cut line with blue paint under the supervision of the RPF.** **Those trees less than 12" DBH will be determined by the LTO based on spacing guidelines.** **Arrows for directional felling may be added to direct felling away from existing regeneration, and to protect watercourses, sensitive areas or residual trees.**

[☐]Yes [X] No	Is the RPF requesting a waiver of required marking?
	If YES, provide directions explaining how the LTO will determine what trees shall be harvested or retained:
	If more than one silvicultural method or group selection is used, provide instructions to the LTO identifying how boundaries of the different methods or groups have been identified:

e. FOREST PRODUCTS TO BE HARVESTED:					
[X]	**Saw Logs**	[☐]	Poles	[☐]	Clean Chips
[☐]	Peeler Logs	[☐]	Split Wood Products	[☐]	Firewood
[X]	Fuel Wood	[X]	Fuel chips	[☐]	Other
[☐]	Burl Wood				

f.	**GROUP B SPECIES MANAGEMENT**
1.[☐]Yes [X] No	Are group B species proposed for management?
2.[☐]Yes [X] No	Are group B or non-indigenous A species to be used to meet stocking standards?
3.[☐]Yes [X] No	Will group B species need to be reduced to maintain relative site occupancy of group A species?
If any answer is YES, list the species, describe treatment, and provide LTO felling and slash treatment guidance. See table below	

TABLE FOR LTO TREATMENT GROUP B SPECIES MANAGEMENT			
Species	**Treatment Method**	**Felling Instruction**	**Slash Treatment Instructions**
Aspen	**Small Aspen stands exist throughout the project area. To promote Aspen restoration, Aspen stems shall be retained by the LTO and not damaged. All conifers within the confines of the Aspen stands will be targeted for removal.**	**Hand crews will be used to remove small conifers from Aspen stands. Equipment, located outside of the aspen stand may be used for end-lining large trees, End-lining within the aspen stand will only occur when soils are dry**	

CalTREES THP ITEM #14 - SILVICULTURE

1. [☐]Yes [X] No	Are follow-up treatments expected to maintain relative site occupancy of group A species? [☐] Manual Treatments - Describe: [☐] Herbicide Treatments - Describe: [☐] Both
	If YES who will be responsible?
2.[☐]Yes [X] No	Will a Licensed Pest Control Advisor be involved in the process? If YES explain when an advisor will be needed:

g.	**LTO FELLING INSTRUCTIONS PLAN AREA**
	Understory trees/fuels determined by the LTO: In general, small diameter trees of 1 - 11.9 inches DBH shall be spaced on average 20-30 feet. **Thinning from below to treat understory fuels shall include the removal of woody debris and slash material; dead, diseased, damaged, and/or insect infested tree regardless of size, with the exception of designated wildlife or legacy trees; while retaining crop trees that are healthy, vigorous, and of the best phenotypic quality available in the pre-harvest stand. Young, fast growing pines that have a good full top will be kept. White fir should be left only when the more desirable species are not present within a reasonable distance.** **Other Instructions:** **1. To the fullest extent possible and with due consideration given to topography, lean of trees, landings, local obstructions, and safety factors, trees shall be felled to lead in a direction away from watercourses and lakes.** **2. Desirable residual trees and tree seedlings of commercial species shall not be damaged or destroyed by felling operations, except where unavoidable due to safety factors, lean trees, location of obstructions or roads, or lack of sufficient openings to accommodate felled trees.**

h.	**REGENERATION**
[☐]Yes [X] No	Will artificial regeneration be required to meet stocking standards? Describe:

i.	**SITE PREPARATION**
Definition of site preparation per 14 CCR § 895.1: Site preparation means "any activity" involving mechanical disturbance of soils or burning of vegetation which is performed during or after completion of timber harvesting and is associated with preparation of any portion of a logging area for artificial or natural regeneration.	
1[X]Yes [☐] No	Will site preparation be used within the logging area? If YES, provide site preparation plan per 14 CCR § 915.4 [935.4, 955.4] **See Section V, Phase 3 Prescribed Fire Burn Unit Plan**
2[☐]Yes [X] No	Will site preparation be required to meet stocking?
	General method(s) of site preparation: **Broadcast burning – The Nature Conservancy has implemented prescribed fire on several hundred acres within the Independence Lake property. The goals of the Independence Lake Prescribed Fire Projects are to promote and enhance biodiversity, forest resiliency to wildfires, protect and improve watershed function and wildlife habitat and provide a safe learning environment to preserve visitors and employees. Reintroducing fire will stimulate a more natural range of variability in vegetation successional stages by allowing fire to act as a natural disturbance process.** **Three prescribed burn unit plans have been prepared for various sections of the property. The first burn unit plan for 315 acres at the east end of the property was completed in 2015. The second plan encompassing an additional 647 acres also at the east end of the property was completed in 2017. The third burn unit plan coincides with the proposed <u>THP acres and is included in Section V of the THP</u> for review.** **Both burns completed to date were done by Firestorm Wildland Fire Suppression. The burns were staffed with a crew of 20 including a burn boss, ignition boss and holding boss, and 2 Type 3 each staffed with 3 personnel. TNC staff were on-site each day of the burn and during mop-up. The Sierraville Ranger District of Tahoe National Forest served as back-up as needed. Cal Fire issued Burn Permits to TNC each year, and TNC obtained Smoke Permits from Northern Sierra Air Quality Management District.**

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	• Type of equipment to be used for mechanical site preparation and/or firebreak construction: **Fire breaks for burn units consist of existing roads used as fire lines, hand-lines and Independence Lake.**
	• Methods to protect desirable residual trees per 14 CCR § 917.7 [937.7, 957.7]: **The area will be thinned from below prior to burning.** • **Where deemed necessary to meet stocking requirements, hand-lines will be cut to protect leave trees from bole and crown scorch to the extent feasible to avoid unintentional mortality. In areas of acceptable natural regeneration that meet the stocking and species preference objectives, hand-lines will be cut to protect the area from prescribed fire effects to the extent practicable.** • **Broadcast burning will remove the needles, twigs, small branches and shrubs that normally inhibit natural regeneration, but will retain large woody debris and the upper soil layers necessary for maintaining site productivity and other ecological functions.**
3.[☐]Yes [X] No	• Are there any exceptions or alternatives proposed to the standard rules? If YES, provide an explanation and justification for the proposed exceptions:
	• Provide a map identifying the boundaries of site preparation areas, if different from the logging area boundaries, and distinguish areas by type of site preparation activity. **See Section V – Phase 3 Prescribed Fire Burn Unit Plan**
	• Prior to conducting site preparation activities provide the name of the person responsible for site preparation:
	- Name: **Chris Fichtel – The Nature Conservancy in Nevada**
	- Address: **One E. First Street, Suite 1007, Reno, NV 89501**
	- Phone #: **775-322-4990**
	• Estimated timing of site preparation activities: **Units can be burned in spring or fall after timber operations**

j.	**REGENERATION PLAN (rehabilitation of understocked areas or variable retention)**
[☐]Yes [X] No	Is a regeneration plan needed per 14 CCR § 913.4 [933.4, 953.4](b) or (d)? If YES, please provide a detailed description for Review Team to evaluate how the proposed management prescription will aid in restoring and enhancing the productivity of commercial timberland. The regeneration plan shall include but not be limited to: - Rehabilitation of understocked areas: site preparation, method of regeneration and other information needed to evaluate the proposal by the Review team: - Variable Retention: Trees and elements retained, objectives intended to achieved by retention, distribution and quantity of retained tress, intended time period of retention, and potential future conditions or events the RPF believes would allow harvest of retained trees.

Regeneration plan:

ITEM CC

If the Alternative prescription is selected the RPF shall provide the following information:
PRE- HARVEST STAND DESCRIPTION
C1 Closest standard silvicultural prescription: **Selection with the focus on fuel reduction, sanitation, and salvage.**
C2 Description of stand before timber operations: **Examining the density of the three stand types, there is on average 353 TPA, 285 are less than 12 inches DBH. The quadratic mean diameter (QMD) is 8 inches. If we removed the shade tolerant species from the understory by thinning from below all stems less 12 inches DBH, the QMD would increase to 17 inches and the basal area per acre would be reduced by less than 30 square feet.**
Current species composition **– (Abies concolor), 21%; Red fir (Abies magnifica), 37%; Lodgepole Pine (Pines contorta), 17%; Jeffery Pine (Pines jeffreyi), 14%; Western White Pine (Pines moticola),8% and Aspen (Populus tremuloides), 4%. Approximately 20+ trees per acre are standing dead with 36 trees per acre infected with dwarf mistletoe.**
Current stocking (expressed in Basal Area or combination Basal Area and Point count – **The current basal area per acre is 136 square feet.**
Estimate of Basal Area to be removed – **Approximately 30 square feet per acre will be removed across the lower diameter range (2-12”). Approximately 20 square feet per acre will be removed above 12”**

CalTREES THP ITEM #14 - SILVICULTURE

C3 Stand management constraints – **Approximately 5% standing dead with an additional 15% infected with Dwarf Mistletoe (Arceuthobium Spp.), Cytospora Canker (Cytospora abietis), Fir Engraver (Scolytus ventralis), and White Pine Blister Rust (Cronartium ribicola). There are no management constraints; Trees, which currently show signs of disease or damage will be marked for removal.**

C4 Why is the closest Silvicultural Prescription not feasible or appropriate? **Selection is the method most nearly appropriate or feasible which would come close to meeting the on the ground application as presented in the plan. However, given the current stand conditions, large openings with 50 to 70 % of the trees less than 12 inches dbh, the Selection prescription is not the best fit as it does not allow for both fuel reduction and forest health treatment across the landscape.**

C5 How alternative prescription will differ in securing regeneration, aesthetics, protection of soil, water quality, wildlife habitat, and insect and disease protection – **The flexibility of utilizing the proposed Alternative Prescription - selection with sanitation and salvage will allow the transition of stand conditions to better match the Sagehen prescription (North, et. al. 2009, also referred to as General Technical Report (GTR) 220.) to the South and the USFS prescriptions to the north and east, thus maintaining structural connectivity across the landscape while meeting the landowner's goals of fuel reduction to protect sensitive species, and enhanced forest health.**

On the ground, the RPF will have more flexibility to effectively treat the various stand conditions across the landscape. By combining selection with sanitation and salvage, there will be little difference in terms of securing regeneration, protection of soil, water quality, wildlife habitat, visual appearance; and fire, insect and disease protection than that of Selection.

POST-HARVEST STAND DESCRIPTION

C6 Description of stand after completion of timber operations: **The post-harvest stand will transition into a healthy, unevenaged, three-tiered stand with at least three distinct age classes. The species composition will favor pine. The trees per acre will range between 50 and 200. The QMD will be approximately 17" and the WHR will change from a 3 P, M, or D, to a 4 P, M or D.**

Management Objective – **The primary objective of this silvicultural method is to reduce the fire hazard, promote a healthy forest by reducing inner tree competition, and create small openings for natural regeneration.· Guidelines for tree selection include removing the understory fuel ladder, marking high-risk, diseased trees, thinning from below, and spacing of future crop trees. This silvicultural method will consist of removing individuals or small groups of trees in all size classes (classic inverse "J" curve) to create a balanced uneven-aged stand structure. This method will promote the establishment of a multi-aged stand structure of healthy trees, increased growth throughout a broad range of diameter classes, and reduce the fire hazard.**
The overarching goals of this project are to promote and enhance biodiversity, forest resiliency to wildfires, protect and improve watershed function and wildlife habitat and provide a safe learning environment for preserve visitors and employees. Reintroducing fire as a disturbance process will result in a more natural range of variability in vegetation successional stages and provide other ecosystem functions for fire adapted or dependent plants and animals directly and indirectly. By reducing activity and naturally accumulated fuels within the burn units this project will reduce the risk and likelihood of high intensity wildfires that would negatively affect overall ecosystem health and public safety.

Desired species composition – **The species composition of the post-harvest stand will change from that of the pre-harvest stand. Understory white fir, red fir and Lodgepole pine will be targeted for removal. Healthy Aspen, Jeffery pine, and Western white pine will be the preferred leave trees.**

Estimation of remaining stocking after harvest expressed as Basal Area or a combination of Basal Area and/or Point Count: **The post-harvest basal area will range from approximately 0 to 120 square feet of basal area per acre. The post-harvest stocking standards shall meet the most closely associated standard, Selection.**

C7 Method of designating trees to be harvested or retained **– All trees 12" DBH and larger targeted for harvested will be marked above and below the cut line with blue paint under the supervision of the RPF. Those trees less than 12" DBH will *not* be marked by the RPF and will be determined by the LTO based on spacing guidelines. Arrows for directional felling may be added to direct felling away from existing regeneration, and to protect watercourses, sensitive areas or residual trees.**

Trees 1 - 11.9 inches DBH identified by the LTO shall be spaced on average 20-30 feet, all other trees shall be spaced on average 35-45 feet. Thinning from below will include the removal of any dead, diseased, damaged, and/or insect infested tree regardless of size, with the exception of designated wildlife or legacy trees; while retaining trees that are healthy, vigorous, and of the best phenotypic quality available in the preharvest stand.

- Type of field designation to be followed (entire area mark, sample mark professional supervision of fallers) **– A sample mark of at least 10% of the area will be marked prior to the Pre-harvest Inspection (PHI). The remainder of the project area will be marked concurrently with timber operations to ensure adequate RPF supervision.**

C8 Site preparation method (If applicable) – **No site preparation or regeneration will be necessary to meet the stocking requirements. Stocking will be met by residual basal area immediately after completion of operations.**

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Broadcast burning will be used on the treated ground as a means to re-introduce fire back into the ecosystem.

- **The burn unit boundaries fall within the silvicultural treatment boundaries.**
- **The name, address, and telephone number of the person responsible for conduct for Site Preparation activities shall be provided prior to conducting Site Preparation activities.**
- **Burning will be conducting in the spring or fall after silvicultural treatments.**

Once the silvicultural treatments are completed and prior to burning, fuels in units will be reassessed by a qualified Type 2 Burn Boss. The Burn Boss will determine if post-harvest activity fuels have changed to the point that Fuels Models (Scott and Burgan; RMRS-GTR-153) used in the Phase 3 Burn plan are no longer representative of the post-harvest activity fuels, and, following the guidance in Element 2, this prescribed fire burn unit plan requires amending.

If the fuel models on the ground are not as described in Element 4.B through 4.I then an amendment will be required. Behave Fire Prediction System runs will be conducted and documented in a revised Appendix E, and the environmental parameters prescription table in Element 7 will be compared to the Behave outputs ensuring the prescribed fire objectives will be met

Purpose and Resource Management Goals:

- **Promote fire effects necessary for functional fire dependent habitats by allowing fire to be the disturbance process that supports a more natural range of variability in native plant community species richness and diversity**
- **Build fire resiliency throughout the project area**
- **Reduce abundance of conifer seedlings that will become the next cohort of ladder fuels**
- **Maintain and increase coverage of aspen clones**
- **Maintain open grassland meadows by reducing encroachment of woody species**
- **Improve and maintain game and non-game wildlife habitat**
- **Maintain and enhance watershed function.**
- **Set the project area on the path to maintain a more natural fire regime, which throughout most of the project area is a return interval of < 35 years**
- **Gain public and agency support for creating an area where wildfires can be easily controlled**
- **Gain public acceptance for smoke impacts and the need for prescribed fires**
- **Reduce risk of uncharacteristic high severity fire and associated impacts to the watershed and adjacent communities.**

Resource Objectives:

- **Limit mortality to 10-25% in conifer species greater than 10 inches DBH as evidenced within 3 years**
- **Achieve mortality of 30% - 80% in conifer species less than 6 feet tall as evidenced within 1-week**
- **Increase abundance of aspen suckering by 10% through removal of organic material thereby increasing exposure to sunlight and soil heating by increasing exposure to sunlight as evidenced within 2 years**

Prescribed Fire Objectives:

- **Reduce activity ground fuel loads (1 - 1000-hour size classes) by 50% within 2-weeks**
- **Reduce litter and duff fuel loads by 50% evidenced within 2-weeks**
- **Blacken 50% of the surface area or more as evidenced within 1 week**
- **Manage ignition techniques to maintain flame lengths range of 1'-6' under conifers. If flame lengths drop below 1' then firing will be adjusted to be more aggressive and increase the flame lengths where possible**
- **Limit scorch height to less than 20 feet in in all conifer species**
- **Manage ignition to reduce torching in ≥ 10" DBH conifers, which may exceed the retention objective.**

See Section V, Phase 3 Prescribed Fire Burn Unit Plan for more details.

C9 Regeneration method and timetable to be used for restocking (If applicable) **– NA**	
C10 [☐]Yes [X] No	**Will the alternative prescription have the same on the ground effect of a clear cut? If YES, then the acreage limitations and requirements of for separation of by a typical logging Unit, yarding equipment limitations, exceptions, and stocking requirements for the clear-cut regeneration method shall apply per 14 CCR § 913.6[933.6, 953.6](c)**

CalTREES THP ITEMs #15-17 – PEST / HARVEST PRACTICES / EROSION HAZARD RATING

ITEM #15 – PESTS

PESTS / FOREST DISEASES	
Timber operations shall be conducted so as to minimize the build-up of destructive insect populations or the spread of forest Diseases. 14 CCR 917.9 [937.9, 957.9](a) – (c) (All Districts)	
a. [☐]Yes [X] No	Is this THP within an area that the Board of Forestry and Fire Protection has declared a Zone of: 1.[☐] Infestation 2.[☐] Infection pursuant to PRC §§ 4712 - 4718? **If YES, identify feasible measures being taken to mitigate adverse infestation or infection impacts from the timber operation. 917.9 (937.9, 957.9)(a)** **Reference Board of Forestry Technical Rule Addendum Number 3 for RPF considerations.**
Measures to mitigate adverse infestations or infections:	

b. [X]Yes [☐] No	Are there any other significant insect or forest disease problems within the THP area if outside a declared zone? 1.[X] Insect(s) 2.[X] Disease(s) 3.[☐] Pest problems 4.[☐] Other (provide description of the forest problem) **If YES, describe proposed measures to improve the health, vigor, and productivity of the stand(s).**

Proposed measures: To improve the health, vigor, and productivity of the residual stand, harvest tree selection will be focused on those trees which exhibit signs of insect, disease or pest problems.

Dwarf Mistletoe (Arceuthobium Spp.) infections of this specie-specific parasite are spread throughout the THP area in the red fir and white fir stands. Much of the mistletoe-infected areas have also been infected with Cytospora canker.

Cytospora Canker (Cytospora abietis) is scattered across the THP area, with heavy infections associated with dwarf mistletoe infected areas where a significant portion of the True fir infected. The canker is killing numerous branches, further reducing the already sparse crowns of the older trees and thinning the crowns of the younger trees. The infections are to the point where significant numbers of trees are dying as a direct result of the canker and subsequent fir engraver beetle attacks.

White Pine Blister Rust (Cronartium ribicola) infects much of the western white pine in the THP area. Many of these infected trees exhibit spike tops, minor to severe flagging (individual branch death), and/or bole blisters.

Western gall rust *(Endocronartium herknessii) can be found on the dryer south facing slopes.*

Fir Engraver (Scolytus ventralis) beetles have killed or top-killed a significant number of white fir and scattered red fir throughout the THP area.

Pine engraver *(Ips pini* (Say), *I. latidens* (LeConte), *I. paraconfusus Lanier,* and *I. emarginatus* (LeConte)) and Mountain Pine Beetle, (*Dendroctonus ponderosae) can be found in throughout the Lodgepole pine stands.*

The marking prescription specifically prioritizes the removal of the weakest trees in a stand. The only exception is the requirement to periodically retain defective trees for wildlife considerations. Throughout the marking, the need for diversity within a stand and the fact that many wildlife species utilize defective trees remains a consideration and exception to the goal of maintaining and improving stands of healthy trees.

In addition to the silvicultural practices and broadcast burning, the following slash treatment will be implemented.

As per Technical Rule Addendum Number 3, pine brood material (pine slash) will be treated by lopping. Such treatment will be completed as soon after brood material creation as is practical, but not later than one week. This treatment includes lopping all branches from the sides and tops of those portions of the main stem which are more than 3" diameter. Branches shall be scattered so that stems have maximum exposure to solar radiation. Brood material will not be piled.

CalTREES THP ITEMs #15-17 – PEST / HARVEST PRACTICES / EROSION HAZARD RATING

ITEM #16 – HARVESTING PRACTICES

YARDING SYSTEM AND EQUIPMENT TO BE USED					
	GROUND BASED (Tractor, skidder, Forwarder)		**CABLE**		**OTHER (Special)**
[X]	Tractor, including end/long lining	[☐]	Cable, ground lead	[X]	Helicopter
[X]	Rubber tire skidder, forwarder	[☐]	Cable, High lead	[☐]	Animal
[X]	Feller buncher	[☐]	Cable, skyline	[☐]	Other (describe below)
[☐]	Shovel yarding				

** All Tractor operations restrictions apply to ground-based equipment Reference 14 CCR 914.2 [934.2, 954.2] (All Districts)

Upon completion of timber operations, the LTO and RPF shall evaluate the WLPZ, skid trails, roads and landings for sites where sediment could potentially be transported into the watercourse. If any are found, the following soil stabilization procedures apply:

a) All landings will be sloped and ditched to prevent water from accumulating on the landing, and properly drained so that landing and road drainage flows cannot transport erosive material to the WLPZ. If necessary, to prevent drainage flows from carrying erosive materials into the WLPZ, drainage lead-outs shall be treated by mulching with logging slash to a depth of 2 inches with at least 80% of the ground covered. If insufficient slash is not available, straw mulch as specified above may be substituted.

Helicopter Operations:
Helicopter harvesting may occur on all harvest areas during the non-winter period at the' LTO's discretion where unrestricted. The helicopter LTO shall comply with the following:

a) Biological. See THP Section II. Item 32. Prior to helicopter operations, the helicopter LTO shall consult the RPF and landowner's wildlife biologist to obtain current biological resources protection measures.

b) Landings are considered part of the "logging area" (14 CCR 895.1 (Definitions)). Landings shall be shown on a THP Operational Map (14 CCR 1034(x)(5). Helicopter landings exceeding one half acre shall be explained and justified (14 CCR943.5(d).

c) When a helicopter used for harvesting ceases logging operations and the pilot chooses to proceed directly to a Helicopter Service Area (HSA), the helicopter shall fly above the following minimum elevation(s):
1) Where wildlife restrictions do not affect the helicopter flight path from the *immediate operations* area to the HSA, the helicopter shall fly at a height greater than 500 feet above the forest canopy top.
2) Where wildlife restrictions affect the helicopter flight path from the *immediate operations* area to the HSA the helicopter shall fly at a height over the forest canopy top that is above the minimum distance for the most restrictive species of concern as stated in THP Section II. Item 32. Minimum distance shall be 1000 feet.

d) All State and Federal regulations pertaining to the handling and storage of fuel shall be adhered to during operations.

e) Secondary impermeable containment will be installed at all refueling/service areas.

CalTREES THP ITEMs #15-17 – PEST / HARVEST PRACTICES / EROSION HAZARD RATING

ITEM #17 – EROSION HAZARD RATING

EROSION HAZARD RATING (EHR)					
		Per 14 CCR 914.6 [934.6, 954.6)(c) Waterbreaks Road and/or Trail Gradients Waterbreak Spacing by trail/road gradient			
		10 or less	11-25	26-50	>50
[☐]	LOW	300	200	150	100
[☐]	MODERATE	200	150	100	75
[X]	**HIGH**	**150**	**100**	**75**	**50**
[☐]	EXTREME	100	75	50	50

NOTE:

- If more than one rating is checked, areas must be identified on a THP map down to 20 acres in size.
- COASTAL DISTRICT with a High or extreme EHR(s) must be mapped to 10 acres.
- If ratings checked do not match the EHR Worksheet clarify the discrepancy:

EHR rating discrepancy: The erosion hazard rating for the entire project area is High. A Soils Map can be found in Section V.

CalTREES THP ITEM #18 – SOIL STABILIZATION

ITEM #18 – SOIL STABILIZATION

ITEM #18	SOIL STABILIZATION / EROSION CONTROL
Per 14 CCR 923.5, 943.5, 963.5 – Erosion Control for Logging Roads and Landings [All Districts] – All logging road and landing surfaces shall be adequately drained, through the use of logging road and landing surface shaping in combination with the installation of drainage structures or facilities and shall be hydrologically disconnected from watercourses and lakes to the extent feasible. Per 14 CCR 914, 934, 954 – Harvesting practice and erosion control [All Districts] – Timber operations shall be conducted to: Meet the goal… to prevent degradation of the quality and beneficial uses of water and maintain site productivity by minimizing soil loss Guidance on methods for hydrologic disconnection may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High-Risk Crossings" (1st Edition, revised 10/27/14) 14 CCR 923.5, 943.5, 963.5(b), (c), (d), (e), (f), (g), (h), (j), (k), (p) contain standard Forest Practice Operational rules pertaining to the timing and specifics for the installation of erosion control structures for Roads and Landings. 14 CCR 914.6, 934.6, 954.6(a) (1-2), (b), (c), (d), (e), (f), (g), additional Coast areas (h), (i) contain standard Forest Practice Operational rules pertaining to the timing and specifics for the installation of erosion control structures for harvesting practices, tractor and cable operations. **THE LTO SHALL BE FAMILIAR WITH THESE STANDARD OPERATIONAL REQUIREMENTS, PRIOR TO OPERATIONS.**	
a. [☐]Yes [X] No	Are there any exceptions proposed to the above listed standard operational requirements? **If YES, please provide the specific operational instruction to the LTO.** • **Upon completion of timber operations, the LTO and RPF shall evaluate the WLPZ, skid trails, roads and landings for sites where sediment could potentially be transported into watercourses. If any are found, the following soil stabilization procedures apply:** • **All landings will be sloped and ditched to prevent water from accumulating on the landing, and properly drained so that landing and road drainage flows cannot transport erosive material to the WLPZ. If necessary, to prevent drainage flows from carrying erosive materials into the WLPZ, or within the watercourse and lake protection zone and ELZs, including approaches to watercourse crossings where mineral soil exceeding 800 continuous square feet in size, exposed by timber operations, the disturbed area shall be stabilized by straw mulch, slash mulching or wood chips to a depth of 2 inches over all the exposed mineral soil with a minimum 80% coverage and to the extent necessary to prevent the discharge of soil into watercourses or lakes in amounts deleterious to the quality and beneficial uses of water.** • **Skid trails on slopes greater than 30% shall be mulched with logging slash, straw or wood chips, whichever is available. Where mulch is needed for ground cover and slash or wood chips are not available, certified weed free straw or rice straw will be used.**
[X]	Methods of stabilization to be used: (check all that apply) STRAW Mulch – **Only certified weed free rice straw** Depth (inches):_____**2"**_____ Percent coverage:___**80%**____
[X]	SLASH Mulch [☐] Scattered Depth (inches):_____ Percent coverage:_____ [X] Packed Depth (inches):_____**2"**_____ Percent coverage:___**80%**____
[☐]	Grass Seeding LTO Instructions:

CalTREES THP ITEM #18 – SOIL STABILIZATION

[X]	Rock Armoring Size: N/A Installation instructions: **To maintain waterbars, waterbar outlets that do not exit on natural vegetation or on ground with enough organic material (such as mulch or slash) or rocks to disperse flows, the outlets will be armored with rock of sufficient size to maintain structure throughout the maintenance period.** **Waterbreaks or any other erosion controls on skid trails, shall be maintained during the prescribed maintenance period and during timber operations as defined in PRC Sections 4527 and 4551.5 so that they continue to function in a manner which minimizes soil erosions and slope instability and which prevents degradation of the quality and beneficial uses of water. The method and timing of waterbreak repair and other erosion control maintenance shall be selected with due consideration given to the protection of residual trees and reproduction and the intent of 14 CCR 914 934.** **The prescribed maintenance period for waterbreaks and any other erosion control facilities on skid trails shall be at least one year. The Director may prescribe a maintenance period extending as much as three years after filing of the work completion report in accordance with 14 CCR 1050.**
[☐]	Replanting LTO instructions if needed
[☐]	Installation of commercial erosion devices Describe commercial devise and provide instructions to the LTO:
[☐]	Other Describe method and provide LTO instructions:

Per 14 CCR 914.9[934.9, 954.9] the RPF may develop on a site-specific basis alternative practices that will achieve environmental protection at least equal to the standards set forth in 914.1-914.8 [934.1-934.8, 954.1-954.8]	
b. [☐]Yes [X] No	Are there any alternative practices to the standard harvesting or erosion control rules proposed? **If YES, the information as required per 914.9 [934.9, 954.9] shall be provided in SECTION III. Provide instructions to the LTO in SECTION II.**

CalTREES THP ITEM #18 – SOIL STABILIZATION

All WATERSHEDS **Logging roads / Landings**	**N/A**	**Description of Treatments**	**Protection Measures**	**Timing**
c. 923.5[943.5, 963.5](i): treatments to prevent significant discharge where features cannot be hydrologically disconnected.	**N/A**			
d. 923.5[943.5, 963.5](l) & (m): treatments for sidecast or fill; cuts and fills associated w/ approaches to watercourse crossings; bare areas w/in WLPZ.		**a. Mulching, or spreading of logging slash.** **b. Minimum coverage for mulching shall be 80% to a depth of 2".** **c. If slash packing is used, it shall be placed to effectively prevent erosion and filter sediment. Coverage of slash used for this purpose shall be 80% to a minimum depth of 2".**	**Sites to be stabilized include: (l) sidecast or fill that extends >20' lineal distance from the outer edge of any logging road or landing which has access to a watercourse or lake. (2) cut and fills associated with approaches to logging road watercourse crossings (3) newly exposed soil surfaces greater than 800ft2 (inside WLPZs and ELZs}, including approaches to watercourse crossings**	**Prior to November 15th during the year of use. Bare areas created after November 15th will be treated with stabilization measures within 10 days, or prior to a 30% chance of precipitation, or prior to shut down periods.**
e. 923.5[943.5,963.5](n): When the natural ability of ground cover in WLPZ is inadequate to filter sediment.		**Where the natural ability of ground cover within a WLPZ is inadequate to protect the beneficial uses of water by minimizing soil erosion or by filtering sediments, such as at the outlet of a critical dip road generated clearing slash may be brought in and placed at the outlet to augment the natural ground covers. Slash will be placed and pressed into the ground with boomed equipment when available. If slash is not available, straw may be substituted and shall be placed and secured by partially tucking into soil with a shovel, or pegging with stakes or other methods.**	**If areas develop with inadequate natural ability to filter sediment, treatment will include Mulching, or spreading of logging slash. Minimum coverage for mulching shall be 80% to a depth of 2".** **If slash packing is used, it shall be placed to effectively prevent erosion and filter sediment. Coverage of slash used for this purpose shall be 80% to a minimum depth of 2".**	**Prior to November 15th during the year of use. Bare areas created after November 15th will be treated with stabilization measures within 10 days, or prior to a 30% chance of precipitation, or prior to shut down periods.**
f. 923.5[943.5,963.5](o): Exceptions to soil stabilization treatment timing.	**N/A**	**No exceptions**		

CalTREES THP ITEM #18 – SOIL STABILIZATION

Watercourse crossings on logging roads				
g. 923.9[943.9,963.9] (t)(1)-(3): Bare soil on fills, sidecast, timing of treatment.		**Treatment measures will include mulching, or spreading of logging slash. Minimum coverage for mulching shall be 80% to a depth of 2". If slash packing is used, it shall be placed to effectively prevent erosion and filter sediment. Coverage of slash used for this purpose shall be 80% to a minimum depth of 2".** **During timber operations road running surfaces within the logging area shall be treated to minimize loss of road surface materials by methods including, but not limited to, rocking, and watering.** **A 1600 permit will be obtained from the Department of fish and Wildlife (DFW) for all new crossings within a WLPZ and for all waterhole development. The LTO will comply with all stipulated additional erosion control treatments and other protective measures stated under the DFW agreement.**	**Roadsides and landings shall be assessed for exposed {>20 ft lineal distance) sidecast and fill that has potential to deliver sediment to a watercourse.**	**Prior to November 15th during the year of use. Bare areas created after November 15th will be treated with stabilization measures within 10 days, or prior to a 30% chance of precipitation, or prior to shut down periods.**

Forest Practice Rules (FPR) require Specific Erosion Control / Soil Stabilization measures to be addressed within the proposed THP addressing. WLPZ & Protected ELZ & EEZs within a Non ASP and exempt ASP watersheds. Please address the following table and the specific rule. If not applicable, so state.

Non ASP & Exempt ASP watersheds WLPZ & Protected ELZ & EEZ	**N/A**	**Description of Treatments**	**Protection Measures**	**Timing**
h. 916.7[936.7,956.7] Stabilization measures for WLPZ of CI & C II.		**Treatment measures will include mulching, or spreading of logging slash. Minimum coverage for mulching shall be 80% to a depth of 2". If slash packing is used, it shall be placed to effectively prevent erosion and filter sediment.**	**After harvest, each unit shall be assessed for areas where soil is exposed or where potential for sediment transport is high. In ELZ and WLPZ areas, newly exposed soil surfaces greater than 800ft2 (inside WLPZs and ELZs). Including approaches to watercourse crossings, shall be treated**	**Prior to November 15th during the year of use. Bare areas created after November 15th will be treated with stabilization measures within 10 days, or prior to a 30% chance of precipitation, or prior to shut down periods.**

CalTREES THP ITEMs #19-21 – GROUND BASED EQUIPMENT

ITEM #19 – 21: GROUND BASED EQUIPMENT

GROUND BASED EQUIPMENT	
a. [☐]Yes [X] No	Per 14 CCR 895.1 a layout is a prepared bed in which a tree is felled, generally constructed by a tractor or other ground based equipment. Are tractor or skidder constructed layouts to be constructed? If YES, specify the location (consider mapping) and the extent of use. NOTE: winter operations and soil stabilization measures apply to tractor or skidder constructed layouts.
Per 14 CCR 914.3 [943.3, 954.3](e)Tractors shall not be used in areas designated for cable yarding except: • To pull trees away from streams • To yard logs in areas where deflection is low • Where swing yarding is advantageous • To construct firebreaks and/or layouts • To provide tail-holds Such exception(s) shall be explained and justified in the THP, and require Director's approved	
b. [☐]Yes [X] No	Will ground based equipment be used within area(s) designated for cable yarding: (CHECK all that apply)
[☐]	Pulling trees away from watercourses
[☐]	Yarding logs from areas with low deflection
[☐]	Swing yarding
[☐]	Construct fire breaks
[☐]	Construct layouts
[☐]	Providing tail-holds
[☐]	Other Describe:
	If YES, specify the location (consider mapping) and provide LTO instructions
c. [☐]Yes [X] No	Are any exceptions proposed for ground-based operations within cable areas outside of the exceptions listed above? If YES, provide the required explanation and justification in SECTION III of the THP and provide operations instructions for the LTO in SECTION II below.

Per 14 CCR § 914.9 [934.9, 954.9](a) Alternatives to Standard Rules:

(a) Alternative practices may be developed by the RPF on a site-specific basis provided the following conditions are complied with and the alternative practices will achieve environmental protection at least equal to that which would result from using measures stated in 14 CCR §§ 914.1-914.8 ,934.1-934.8, 954.1-954.8.

(1) Environmental impacts with potential for significant adverse effects on the beneficial uses of water, on the residual timber, and on the soil productivity are identified and measures proposed to mitigate such impacts are included in an approved THP. The THP shall also contain a clear statement as to why alternative harvesting and erosion control measures are needed.

(2) The alternative practice(s) must be explained in sufficient detail and standards provided in the THP so that they can be adequately evaluated and enforced by the Director and implemented by the licensed timber operator.

(3) On a THP in which alternatives covering harvesting and erosion control measures have been incorporated, the timber operator shall agree to the alternative specifications by signing and filing with the Director a copy of the plan, the amended plan or a facsimile thereof, prior to beginning or continuing operations on the portion of the plan to which the alternatives apply.

(b) The Director shall not accept for inclusion in a THP alternative harvesting and erosion control measures proposed under this section which do not meet the standard of subsection (a) of this section. In the event that there is more than one written negative position showing that the alternative practice(s) does (do) not meet the standard of subsection (a) received from among the agencies listed in 14 CCR 1037.3 and the Department which participated in the review of the plan including on-the-ground inspection, the Director shall reject the proposed alternative.

(c) Alternative practices stated in an approved THP shall have the same force and authority as those practices required by the standard rule.

CalTREES THP ITEMs #19-21 – GROUND BASED EQUIPMENT

d. [☐]Yes [X] No	Is the RPF proposing any Alternative Practices to the standard rule on a site-specific basis? If "YES" provide clear instruction to the LTO in Section II advising LTO how the Alternative is to be implemented to maintain equal protection of the standard rule. In Section III explain how the alternative practice proposed achieves environmental protection at least equal to that what which would result from using measures stated in 14 CCR §§ 914.1-914.8 ,934.1-934.8, 954.1-954.8.

LTO Instructions:

14 CCR 914.2 [934.2, 954.2](a-k) Identifies the Forest Practice Rule requirements for the use of ground based equipment within the harvesting area.

- (b) Tractor, or other heavy equipment equipped with a blade, SHALL NOT operate on skid roads or slopes that are so step as to require the blade to be used for breaking.
- (c) Tractor roads SHALL be limited in number and width to the minimum necessary for removal of logs.
  - When less damage to the resources specified in 14 CCR 914[934, 945] will result, existing tractor roads shall be used instead of constructing new tractor roads.
  - [NORTHERN only] RPF may propose exceptions for silvicultural reasons when explained and justified within the plan.
- (e) Slash and debris from timber operations SHALL not be bunched adjacent to residual trees required for silvicultural or wildlife purposes, or placed in a location where they could discharge into a Class I or II watercourse, or Lake.
- (g) where tractor roads are constructed only those roads shall be used for the skidding of logs to landings
- (h) Desirable residual trees and seedlings will not be damaged or destroyed by tractor operations.
- (i) where water breaks cannot effectively disperse surface runoff, other erosion controls shall be installed as needed.
- Slope restriction are identified in subsection (d), (f) [Coastal, Northern], (j) [Southern]

The LTO shall be aware of these rule requirements prior to operations

e. [X]Yes [☐] No	Will new tractor roads be constructed?
f. [☐]Yes [X] No	Will tractor road use be limited to existing tractor roads?

ASP NOTE: per 14 CCR 916.9 (k)(1) – Year-around tractor road limitations, Tractor roads shall not be used when operations may result in significant sediment discharge and (m) Tractor Road Drainage Facility Installation - All tractor roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following yarding and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within a WLPZ or within any ELZ or EEZ designated for watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

Will ground based equipment be used on:

g. [☐]Yes [X] No	Unstable areas? (only allowed if unavoidable) If YES, the RPF SHALL develop specific measures to minimize the effect of operations on slope stability. Provide the required justification and explanation in SECTION III and operational instructions to the LTO in SECTION II.
h. [☐]Yes [X] No	Slopes steeper than 65% if YES, provide site specific instructions to the LTO in SECTION II and provide the required explanation and justification in SECTION III.
i. [☐]Yes [X] No	Slopes steeper than 50% where the erosion hazard rating (EHR) is HIGH or EXTREME. if YES, provide site specific instructions to the LTO in SECTION II and provide the required explanation and justification in SECTION III.
j. [☐]Yes [X] No [☐] [☐] [☐]	Slopes between 50% and 65% with a MODERATE EHR at: (percentage based on average slope on sample areas of 20 acres) Existing tractor roads that do not require reconstruction. [NORTHERN and SOUTHERN only] New tractor roads that have been flagged by an RPF or supervised designee prior to use. [COASTAL only] New tractor roads at a location that has been shown on the THP map, flagged by an RPF or supervised designee prior to the pre-harvest inspection, or prior to the start of timber operations if a PHI was not required.

CalTREES THP ITEMs #19-21 – GROUND BASED EQUIPMENT

	if YES, provide site specific instructions to the LTO in SECTION II.
k. [☐]Yes [X] No	Slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake? if YES, provide site specific instructions to the LTO in SECTION II and provide the required explanation and justification in SECTION III.
NOTE: - Per 14 CCR 1034(x)(15) all exceptions must be located on a map. - If any question above is answered YES then tractor road locations must be flagged on the ground prior to the PHI or the start of timber operations if a PHI is not required.	

CalTREES THP ITEM #23 – WINTER OPERATIONS

ITEM # 23 – WINTER OPERATIONS

Per 14 CCR 895.1:

- **"Winter period" means the period between November 15 and April 1, Except under special County Rules per 14 CCR:**
  - 925.1 (Santa Clara)
  - 926.18 (Santa Cruz)
  - 927.1 (Marin)
  - 965.5 (Monterey)

- **"Extended wet weather period" means the period from October 15 to May 1.**

- **Tractor roads (except as otherwise provided in the rules):**
  - All waterbreaks shall be installed no later than the beginning of the winter period of the current year of timber operations.
  - Installation of drainage facilities and structures is required from October 15 to November 15 and April 1 to May 1 on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a "chance" (30% or more) of rain within the next 24 hours per 14 CCR 914.6[934.6, 954.6](a).
- **Logging roads and landings used for timber operations shall have adequate drainage**:
  - Upon completion of use for the year or by October 15, whichever is earlier.
  - An exception is that drainage facilities and drainage structures do not need to be constructed on logging roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow. 923.5[943.5, 963.5](j).

- When the term "**WPOP"** (Winter Period Operating Plan) is used below, all the requirements per 14 CCR 914.7[934.7, 954.7] (b) must be addressed.

ITEM #23	**WINTER OPERATIONS**
If timber operations are proposed within the winter period the RPF may propose to operate under a: • **Winter Period Operating Plan (WPOP) per 14 CCR 914.7, 934.7, 954.7(b)** • **In-lieu winter operating plan per 14 CCR 914.7 [934.7, 954.7](c)**	
a. [☐]Yes [X] No	Will timber operations occur during the winter period?
WINTER PERIOD OPERTING PLAN (WPOP)	
A Winter Period Operating Plan (WPOP) is required when winter operations will occur under the following conditions: • **Site preparation** • **Road and landing construction** • **Temporary logging road watercourse crossings will not be removed** • **At tractor watercourse crossings** • **Temporary logging roads or landings** • **Roads to be abandoned or deactivated** • **Operations are proposed in an ASP watershed or immediately upstream**	
b. [☐]Yes [X] No	Will mechanical site preparation be conducted during the winter period? **If YES, then a WPOP is required per 14 CCR 914.7 [934.7, 954.7](b)**
c. [☐]Yes [X] No	Will roads be constructed during the winter period? **If YES, a WPOP is required per 14 CCR 914.7 [934.7, 954.7] addressing logging road and landing construction and reconstruction per 14 CCR 923.4 [943.4, 963.4](l). Provide operational instructions to the LTO in SECTION II**
d. [☐]Yes [X] No	Will landings be constructed during the winter period? **If YES, a WPOP is required per 14 CCR 914.7 [934.7, 954.7] addressing logging road and landing construction and reconstruction per 14 CCR 923.4 [943.4, 963.4](l).). Provide operational instructions to the LTO in SECTION II**
e. [☐]Yes [X] No	Will temporary logging road watercourse crossings be left in place during the winter period? **If YES, a WPOP is required per 14 CCR 923.9 [943.9, 963.9](r). Provide specific measures to be taken during operations by the LTO in SECTION II**

CalTREES THP ITEM #23 – WINTER OPERATIONS

f. [☐]Yes [X] No	Will tractor watercourse crossings be used during the winter period? **If YES, a WPOP is required per 14 CCR 914.8 [934.8, 954.8](d). Provide operational instructions and stabilization measures in SECTION II.** **If an exception is proposed provide an explanation and justification in SECTION III.**
g. [☐]Yes [X] No	Will temporary logging roads be used during the winter period? **If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.**
h. [☐]Yes [X] No	Will temporary landings be used during the winter period? **If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.**
i. [☐]Yes [X] No	Will logging roads to be abandoned or deactivated, be open (not blocked) during the winter period? **If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.**
ASP WATERSHEDS OR IMMEDIATELY UPSTREAM	
	Extended Wet Weather Period:
j. [☐]Yes [☐] No	Are timber operations proposed during the extended wet weather period – October to May 1? If YES, then a WPOP is required per 14 CCR 916.9 [936.9, 963.9](l) and (l)(1)
k. [☐]Yes [☐] No	Will logging roads construction or reconstruction occur within the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II**
l. [☐]Yes [☐] No	Will logging road use occur within the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II**
m. [☐]Yes [☐] No	Will landing construction or reconstruction occur within the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II**
n. [☐]Yes [☐] No	Will landing use occur within the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II**
o. [☐]Yes [☐] No	Will any watercourse crossing drainage structures be CONSTRUCTED during the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.9 [943.9, 963.9](s) In SECTION II**
p. [☐]Yes [☐] No	Will any watercourse crossing drainage structures be RECONSTRUCTED during the extended wet weather period? **If YES, provide specific measures to be taken during operations per 14 CCR 923.9 [943.9, 963.9](s) In SECTION II**
q. [☐]	**If any of the questions above are answered YES then WPOP is required:** **RPF chooses to prepare a WPOP per 14 CCR 914.7 [934.7, 954.7](b)(1-12)**

IF A WINTER OPERATING PLAN (WPOP) IS NOT BEING PROPOSED THEN THIS PAGE MAY BE REMOVED

CalTREES THP ITEM #23 – WINTER OPERATIONS

ITEM FF

WINTER PERIOD OPERATING PLAN (WPOP)	
Per 14 CCR 914.7 [934.7, 954.7](b) the WPOP shall include the specific measures to be taken during the winter period to avoid or substantially lessen erosion, soil movement into watercourses and soil compaction from timber operations. The winter period operating plan shall address the following subjects:	
1) Erosion Hazard Rating:	
2) Mechanical Site preparation methods:	
3) Yarding system: ***(Constructed skid trails and tractor road watercourse crossings)***	
4) Operating Period:	
5) Erosion Control facilities timing:	
6) Consideration of form of precipitation: ***(rain or snow)***	
7) Ground conditions: ***(soil moisture conditions, frozen)***	
8) Silvicultural system ground cover:	
9) Operations within the WLPZ:	
10) Equipment limitations:	
11) Known Unstable Areas:	
12) Logging roads and landings:	

IN-LIEU WINTER PERIOD OPERATION PLAN	
r. [☐]	**RPF chooses the in-lieu winter operating plan option as allowed per 14 CCR 914.7 [934.7, 954.7](c)(1-3)** **Specify the procedures listed in subsections (1) and (2), and list the site-specific measures for operations in the WLPZ and unstable areas as required by subsection (3).**
s. [☐]Yes [X] No	Will the in-lieu winter operating plan include operations within WLPZ(s) or unstable area(s) during the winter period? **If YES, provide site specific measures per 14 CCR 914 [934, 954] to protect the beneficial uses of water in SECTION II as instructions to the LTO.**
Hauling and heavy equipment use roads and landings	
t. [☐]Yes [X] No	Will <u>ROADS</u> be used for log hauling and heavy equipment use during the winter period where there will not be a stable operating surface or surfaced with rock to a depth and quantity sufficient to maintain a stable operating surface? **If YES, the required explanation and justification should be provided in SECTION III per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].**
u. [☐]Yes [X] No	Will <u>LANDINGS</u> be used for log hauling and heavy equipment use during the winter period where there will not be a stable operating surface or surfaced with rock to a depth and quantity sufficient to maintain a stable operating surface?

CalTREES THP ITEM #23 – WINTER OPERATIONS

	If YES, the required explanation and justification should be provided in SECTION III per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].
Hauling and heavy equipment use on hydrologically disconnected or saturated soils.	
v. [☐]Yes [X] No	Will ROADS be used for log hauling and heavy equipment use during the winter period on roads that are NOT hydrologically disconnected and exhibit saturated soil conditions? **If YES, provide a required explanation and justification in SECTION III. per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].**
w. [☐]Yes [X] No	Will LANDINGS be used for log hauling and heavy equipment use during the winter period on roads that are NOT hydrologically disconnected and exhibit saturated soil conditions? **If YES, provide a required explanation and justification in SECTION III. per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].**
Watercourse crossing removal	
x. [☐]Yes [X] No	Will any logging road watercourse crossing proposed for removal and/or stabilization be left in place during the winter period? **If YES, provide operational instructions to the LTO addressing the specifics of the applicable CDFW 1600 agreement, Lake and Streambed alteration agreement or otherwise specify in the plan. Per 14 CCR 923.9[943.9, 963.9](p)(4) In SECTION II**

CalTREES THP ITEMs 26 – WATERCOURSES

ITEM #26– WATERCOURSE LAKE PROTECTION ZONE (WLPZ) PROTECTION MEASURES

ITEM #26	**WATERCOURSES**

Per 14 CCR 916, 936, 956 – Intent of Watercourse and lake Protection [ALL DISTRICTS] – The purpose of this article is to ensure that timber operations do not potentially cause significant adverse site-specific and cumulative impacts to the beneficial uses of water, native aquatic and riparian-associated species, and the beneficial functions of riparian zones; or result in an unauthorized take of listed aquatic species; or threaten to cause violation of any applicable legal requirements. This article also provides protection measures for application in watersheds with listed anadromous salmonids and watersheds listed as water quality limited under Section 303(d) of the Federal Clean Water Act.

It is the intent of the Board to restore, enhance, and maintain the productivity of timberlands while providing appropriate levels of consideration for the quality and beneficial uses of water relative to that productivity…. Further, it is the intent of the Board that the evaluations that are made, and the measures that are taken or prescribed, be documented in a manner that clearly and accurately represents those existing conditions and those measures.

a. [X]Yes [☐] No	Are there any watercourses or lakes classified as a CLASS I through CLASS IV within or adjacent to the plan area? *(Check all that apply)*		
		Within plan area	Adjacent to plan area
	[X] Class I:	[X]	[X]
	[X] Class II:	[X]	[☐]
	[X] Class III:	[X]	[☐]
	[X] Class IV:	[X]	[☐]
	[X] Lakes:	[☐]	[X] **In-Lieu Practice**
	[X] Other (**Springs, Seeps**)	[X]	[☐]

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

b.[X]Yes [☐] No	Will Class III or IV watercourses be protected with a WLPZ or ELZ? **If YES, describe below**

LTO instructions: **See table and protection measures below**.

Watercourse description and protection measures to be applied: (14 CCR 916.5)

Watercourse Class	Side Slope (%)	Width (ft.)	Protection Measures	Notes
Class I	**<30**	**75**	**BDG**	**WLPZ**
	30 - 50	**100**	**BDG**	**WLPZ**
	50+	**150**	**ADG**	**WLPZ**
Class II	**<30**	**50'**	**BEI**	**WLPZ**
	30 - 50	**75'**	**BEI**	**WLPZ**
	50+	**100'**	**BEI**	**WLPZ**
Class III	**<30**	**25'**	**CFH**	**ELZ**
	>30	**50'**	**CFH**	**ELZ**
Class IV	**All**	**25'**	**CFI**	**ELZ**
Spring	**All**	**50'**	**BEI**	**Remains on surface w/ downstream connectivity**
Wet Meadow	**All**	**Transition Zone**	**BEI**	
Lake	**All**	**100' uphill from road edge**	**BEI**	**In-lieu Area – See Section II, Item 27, and Section III**

CalTREES THP ITEM #24 & 25– ROADS AND LANDINGS

ITEM # 24 – ROADS AND LANDINGS

ITEM #24	ROAD CONSTRUCTION
a. [☐]Yes [X] No	**Will any road(s) be CONSTRUCTED?**
	PROVIDE: The classification and approximate length of each of the following logging road segment categories: 1034(o) Road classification: Approximate length Feet: ☐ Permanent _____ ☐ Seasonal _____ ☐ Temporary _____
b. [☐]Yes [X] No	Will new road construction be wider than single lane with turnouts? **If YES, address pursuant to 14 CCR 923 [943, 963](c) & 923.2 [943.2, 963.2](d)(1)**
c.[☐]Yes [X] No	Will any new Logging road(s) cross? ☐ Unstable areas ☐ Connected headwall swales (14 CCR 895.1 "Connected Headwall Swale") ☐ Both **If YES, address pursuant to 14 CCR 923.1 [943.1, 963.1](d)**
d. [☐]Yes [X] No	Will any new roads? ☐ Exceed a grade of 15% ☐ Have grades greater than 15% for distances greater than 500 feet ☐ Both NOTE: per 14 CCR 1034(x)(5)(A) new road construction or reconstruction segments exceeding 15% for 200 feet shall be mapped. **If YES, address pursuant to 14 CCR 923.2 [943.2, 963.2](d)(2). See 923 [943. 963](c).**
e. [☐]Yes [X] No	Will any logging roads be constructed within? ☐ 150 feet of a Class I Watercourse and Lake Transition Line (WLTL) ☐ 100 feet of a class II WLTL on slopes greater than 30% ☐ Class I Watercourse or Lake ☐ Class II Watercourse or Lake ☐ Class III Watercourse or Lake ☐ Class IV Watercourse or Lake ☐ A Watercourse and Lake Production Zone (WLPZ) ☐ Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: · Existing logging road crossing(s) · Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) · Logging road watercourse crossings of class III watercourses that are dry at the time of use. **If YES, address per 14 CCR 923 [943, 963](c)**
f. [☐]Yes [X] No	Will any constructed road be located across 100 feet or more lineal distance on? ☐ Slopes over 65% ☐ Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake **If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)**
g. 1.[☐]Yes [X] No **2.**[☐]Yes [X] No **3.**[☐]Yes [X] No **4.**[☐]Yes [X] No	Will any road(s) be deactivated? Will any road(s) be abandoned? Road classification: Approximate length Feet: ☐ Permanent _____ ☐ Seasonal _____ ☐ Temporary _____ Will any watercourse crossing(s) be deactivated? Will any watercourse crossing(s) be abandoned? **If YES, describe specific measures to prevent significant sediment discharge. per 14 CCR 923.8 [943.8, 963.8] et seq. and 923.9 [943.9, 963.9](e) and (p)** **If Logging road(s) are to be abandoned provide the blockage design Per 14 CCR 923.8 [943.8, 963.8](d)**

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h. [☐]Yes [X] No	Is there any exception to flagging or otherwise identifying the location of any road(s) to be constructed? **If YES, address per 14 CCR 923.3 [943.3, 963.3](c)**
ROAD RECONSTRUCTION	
i. [☐]Yes [X] No	**Will any roads be RECONSTRUCTED**?
	PROVIDE: The classification and approximate length of each of the following logging road segment categories: 1034(o) Road classification: Approximate length Feet: ☐ Permanent _____ ☐ Seasonal _____ ☐ Temporary _____
j. [☐]Yes [X] No	Will new road reconstruction be wider than single lane with turnouts? **If YES, address pursuant to 14 CCR 923 [943, 963](c) & 923.2 [943.2, 963.2](d)(1)**
k. [☐]Yes [X] No	Will any logging roads be reconstructed within? ☐ Class I Watercourse or Lake ☐ Class II Watercourse or Lake ☐ Class III Watercourse or Lake ☐ Class IV Watercourse or Lake ☐ A Watercourse and Lake Zone (WLPZ) ☐ Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: · Existing logging road crossing(s) · Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) · Logging road watercourse crossings of class III watercourses that are dry at the time of use. **If YES, address per 14 CCR 923 [943, 963](c)**
l. [☐]Yes [X] No	Will any reconstructed road be located across 100 feet or more lineal distance on? ☐ slopes over 65% ☐ Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake. **If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)**
m. [☐]Yes [X] No	Is there any exception to flagging or otherwise identifying the location of any road(s) to be reconstructed? **If YES, address per 14 CCR 923.3 [943.3, 963.3](c)**
LANDING CONSTRUCTION	
n. [☐]Yes [X] No	**Will any Landing(s) be CONSTRUCTED?**
o. [☐]Yes [X] No	Will any landing(s) be constructed within? ☐ 150 feet of a Class I Watercourse and Lake Transition Line (WLTL) ☐ 100 feet of a class II WLTL on slopes greater than 30% ☐ Class I Watercourse or Lake ☐ Class II Watercourse or Lake ☐ Class III Watercourse or Lake ☐ Class IV Watercourse or Lake ☐ A Watercourse and Lake Protection Zone (WLPZ) ☐ Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: · Existing crossing(s) · Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) · Logging road watercourse crossings of class III watercourses that are dry at the time of use. **If YES, address per 14 CCR 923 [943, 963](c)**

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p. [☐]Yes [X] No	Will any landing(s) exceed one half acre in size? NOTE: per 14 CCR 1034(x)(5)(D) if any landing exceeds ¼ acre in size or requires substantial excavation, the location shall be mapped. **If YES, address per 14 CCR 923 [943, 963](c) and 923.2 [943.2, 963.2](e)(2)**
q. [☐]Yes [X] No	Will any Landing(s) be located on? ☐ Unstable areas ☐ Connected headwall swales (14 CCR 895.1 "Connected Headwall Swale" ☐ Both **If YES, address pursuant to 14 CCR 923.1 [943.1, 963.1](d)**
r. [☐]Yes [X] No	Will any landing construction be located across 100 feet or more lineal distance on? ☐ Slopes over 65% ☐ Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake. **If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)**
s. [☐]Yes [X] No [☐]Yes [X] No	Will any Landing(s) be deactivated? Will any Landing(s) be abandoned? **If YES, describe specific measures to prevent significant sediment discharge. per 14 CCR 923.8 [943.8, 963.8] et seq. and 923.9 [943.9, 963.9](e) and (p)**
LANDING RECONSTRUCTION	
t. [☐]Yes [X] No	**Will any Landing(s) be RECONSTRUCTED?**
u. [☐]Yes [X] No	Will any landings be reconstructed within? ☐ Class I Watercourse or Lake ☐ Class II Watercourse or Lake ☐ Class III Watercourse or Lake ☐ Class IV Watercourse or Lake ☐ A Watercourse and Lake Protection Zone (WLPZ) ☐ Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: · Existing logging roads crossing(s) · Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) · Logging road watercourse crossings of class III watercourses that are dry at the time of use. **If YES, address per 14 CCR 923 [943, 963](c)**
SIGNIFICANT EROSION SITE(S)	
v. [X]Yes [☐] No	Are there any significant erosion sites? ☐ Existing ☒ Potential ☐ Both Associated within the logging area at? ☒ Logging road(s) ☒ Landing(s) ☒ Watercourse crossing(s) in the logging area? Per 14 CCR 923.1 [943.1, 963.1](e)(1) – (5). Also see 923.9 [943.9, 963.9](a) **If YES, for each significant existing or potential erosion site, provide the following:** ➢ Describe current condition of the site. ➢ Identify which sites can be feasibly treated, and which sites cannot. ➢ Specify mitigations for those sites that can be feasibly treated. ➢ Indicate logical order of treatment for those which have feasible treatments NOTE: Consider providing a MAP POINT TABLE which identifies the erosion site by mapped referenced identifier consistent with mapped locations.

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MAP POINT (MP) Identifier	SITE DESCRIPTION (SD) (See Key)	Watercourse CLASS (WC) or feature	EXISTING Culvert Diameter Size (EC)	PROPOSED Culvert Diameter Size (PC)	Geologist used? Yes or No	1600? Yes or No	Potential Sediment Discharge (PSD) in cu. yds. (See Key)	Implementation Priority (IP) (See Key)
	MITIGATION AND/OR MANAGEMENT MEASURES: If needed, provide additional details of site; and/or describe proposed treatment							

*NOTE: Write "NA" or "---" if a box is not applicable to the map point

MP:1	**SD: CRP**	**WC: I**	**EC: N/A**	**PC: 3- 12"**	**Geo Used? No**	**1600? Yes**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: In 2011, the design of this crossing was refined in response to discussion with Lahontan WQCB personnel. This design was used during five years of timber operations for THP 2-11-069-SIE and the USFS Outback Project. To prevent affecting water quality of this perennial tributary to Independence Creek, the crossing requires three, 12" squash culverts that will be installed and removed for each season of use. The squash culverts are appropriate to promote fish passage during the season in which they are in place. The crossing will be backfilled with 4 to 6-inch clean cobble, capped with 1.5-inch clean rock. Crossing approaches will be rocked with 3 inch plus, competent angular rock with the minimum binder necessary for a minimum of 50 feet on each side. During the installation or removal, the area will be dewatered around the construction site. After the season of use, the crossing and all associated material will be removed no later than November 1st of the season of installation. The channel will be retained in the pre-existing condition.							
MP:1	**SD: O – Waterhole W-1**	**WC: I**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? Yes**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: **• To minimize sediment flow back into *the waterhole/ watercourse,* truck pads shall be rocked with 2-4", no minus rock, to a depth of 2 inches with a width and length to accommodate the water truck. Rock shall be installed using a dump truck.** **• Brow log/rocks shall be placed between the truck pad and the waterhole to prevent trucks from entering the waterhole. Placement shall be done using an excavator, backhoe, loader, or grapple skidder/cat.** **• Draft hose intakes shall be fitted with filter designed to avoid drafting fish and other vertebrate species into the intake. This mesh/screen shall be maintained in a clean condition. Use suction strainers with screens less than 2 mm in size. Place draft suction strainer in a bucket to avoid substrate and amphibian disturbance. Draft from deepest water source, near bottom.** **• Prior to drafting, the water truck shall be inspected for oil/fuel leaks and if necessary, the water truck operator shall place an absorbent pad/pan under the water truck while drafting to catch any non-water fluids that may drip from the vehicle. The pad/pan shall be replaced and disposed of properly when it becomes ineffective at collecting fluids.** **• The water truck operator shall avoid overfilling the tank to minimize sediment flow back into the waterhole/watercourse.**							
MP:2	**SD: B – County Rd. 351**	**WC: I**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: N/A							
MP:2	**SD: O – Waterhole W-2**	**WC: I**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:1 O- Waterholes W-1 - Mitigation/Management Measures:							

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MP:3	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: <u>Temporary Dry Ford (DF) Crossing of Class III Watercourse - Non-Winter Period Use Only</u> 1. Temporary Dry Ford Crossings shall be designed to be wider than the active watercourse channel to allow the natural movement of channel material. 2. Critical Dips shall be constructed at the same gradient as the watercourse channel and to depth consistent with the channel. 3. Critical Dips shall be constructed such that they are aligned parallel to the natural watercourse channel. If standing water exists, the dip will be rocked with drain rock to alleviate seepage. 4. Temporary Dry Ford crossings shall not be used during the winter period (Nov. 15 to April 1st annually). 5. Temporary crossings must be removed at the end of operations, or prior to November 15th, whichever occurs first. 6. As per 14CCR 943.9 (p), when watercourse crossings, other drainage structures, and associated fills are removed the following standards shall apply: (a) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the logging road watercourse crossing to be removed. (b)The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge. Exposed soil located between the watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, or other suitable treatment to prevent soil erosion and significant sediment discharge. This stabilization shall occur by mulching with logging slash, straw mulch, wood chips, or native pine needles to a depth of 2" covering 80% of the disturbed area.							
MP:4	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:5	**SD: CRP – County Rd. 350**	**WC: II - Meadow**	**EC: 18"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Class II from meadow, multiple pipes, appropriate size for spring flow. Inlet needs clearing and armor to allow water passage. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:6	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:7	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:8	**SD: WF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Class III during spring run-off flows down the road less than 100 feet and then dumps off toward the lake. Install critical dip per MP:3 Mitigation/Management Measures.							
MP:9	**SD: WF**	**WC: II**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Small class II watercourse puddles water in road. Riparian vegetation exists. Install a rocked critical dip to allow passage of water per MP:3 Mitigation/Management Measures.							
MP:10	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							

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MP:11	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:12	**SD: CRP**	**WC: II**	**EC: 24"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:13	**SD: IDE - DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch water has overtopped basin during spring run-off causing water to cross road. Construct critical dip at crossing to mitigate excess water. This ditch connects to MP 14.							
MP:14	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:15	**SD: IDE-CRP**	**WC: II**	**EC: 4"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch catchment – standing water – pipe used for excess water. Ditch connects to MP16. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:16	**SD: IDE-CRP**	**WC: II**	**EC: 12"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Left & right-side ditch connect at MP16. The ditch has standing water. Creates Class II below the road. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:17	**SD: IDE-CRP**	**WC: II**	**EC: 24"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Right-side ditch connect at MP17. The ditch collects water that enters Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:18	**SD: IDE_DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch water has overtopped basin during spring run-off causing water to cross road. Construct critical dip at crossing to mitigate excess water. Functional Site.							
MP:19	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:20	**SD: IDE_CRP**	**WC: II**	**EC: 24"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch connect Class III with Class II above the road crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:21	**SD: IDE-CRP**	**WC: III**	**EC: 18"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch catchment – standing water – pipe used for excess water. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:22	**SD: IDE-CRP**	**WC: II**	**EC: 12"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch catchment – standing water – pipe used for excess water. Creates Class II below the road. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:23	**SD: IDE-CRP**	**WC: II**	**EC: 24"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch connects to Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:24	**SD: IDE-CRP**	**WC: II**	**EC: 18"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch connects to Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							

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MP:25	**SD: IDE-CRP**	**WC: II**	**EC: 12"**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch connects to Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:26	**SD: IDE-DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:27	**SD: IDE-DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:28	**SD: IDE-DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:29	**SD: CRP**	**WC: II**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? Yes**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: (Class II (dry ford) Watercourse Crossings): shall be temporary dry tractor crossings. Use of the subject crossings shall be permitted according to the following restrictions: **1. The dry ford crossings shall not be used if water is present at the crossing site during the time of operations. If water is present, a trench plate will be installed.** **2. The dry ford crossings will not be used if the National Weather Service forecasts a 30% or greater chance of precipitation within 24 hours. If during operations, the National Weather Service forecasts a 30% or greater chance of precipitation within 24 hours, the crossing will be removed according to specifications of (4) below.** **Operations utilizing this crossing, shall be planned to occur when the 24-hour forecast calls for conditions conducive to dry conditions.** **3. As per 14 CCR 943.4(p)(4), crossing shall be removed upon completion of use, or by the first day of the winter period (November 15th, annually), whichever occurs first.** **4. As per 14CCR 943.9 when watercourse crossings, other drainage structures, and associated fills are removed the following standards shall apply:** **(a) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the logging road watercourse crossing to be removed.** **(b)The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge. Exposed soil located between the watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, or other suitable treatment to prevent soil erosion and significant sediment discharge. This stabilization shall occur by mulching with logging slash, tree chips, or native pine needles to a depth of 2" covering 80% of the disturbed area.**							
MP:30	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:3 Mitigation/Management Measures							
MP:31	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							
MP:32	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							
MP:33	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							

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MP:34	**SD: CRP**	**WC: II**	**EC: 18”**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:35	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							
MP:36	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							
MP:37	**SD: DF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP: 3 Mitigation/Management Measures							
MP:38	**SD: WF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Small class III watercourse puddles water in road. Riparian vegetation exists. Install a rocked critical dip to allow passage of water.							
MP:39	**SD: WF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Small class III watercourse puddles water in road. Riparian vegetation exists. Install a rocked critical dip to allow passage of water.							
MP:40	**SD: WF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Small class III watercourse puddles water in road. Riparian vegetation exists. Install a rocked rolling dip to allow passage of water.							
MP:41	**SD: CRP**	**WC: II**	**EC: 18”**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:42	**SD: IDE-CRP**	**WC: II**	**EC: 18”**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch connects to Class II crossing. Functional Site. Standard winterization – clean out inlet prior to winter.							
MP:43	**SD: WF**	**WC: III**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Small class III watercourse puddles water in road. Riparian vegetation exists. Install a rocked critical dip to allow passage of water.							
MP:44	**SD: IDE-CRP**	**WC: III**	**EC: 3”**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch catchment – standing water – pipe used for excess water. Standard winterization – clean out inlet prior to winter.							
MP:45	**SD: IDE-CRP**	**WC: III**	**EC:4”**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: Inside ditch catchment – standing water – pipe used for excess water. Standard winterization – clean out inlet prior to winter.							
MP:46	**SD: O – Waterhole W-3**	**WC: I**	**EC: N/A**	**PC: N/A**	**Geo Used? No**	**1600? No**	**PSD: N/A**	**IP: MED**
	Mitigation/Management Measures: See MP:1 O- Waterholes W-1 - Mitigation/Management Measures:							

CalTREES THP ITEM #24 & 25– ROADS AND LANDINGS

MAP POINT / WORK ORDER TABLE KEY			
SITE DESCRIPTION			
OK	Functional Site	**CROSSING TYPES**	
CSDS	Controllable Sediment Discharge Site	**B**	Bridge
UA	Unstable Area	**CR**	Crossing site
O	Other descriptions than below (describe under "Measures" on table)	**CRF**	Crossing failure
		CRP	Crossing- EXISTING permanent
ROAD / SKID TRAILS		**CRT**	Crossing- EXISTING temporary
CRN	Critical dip needed	**C**	Culvert (also see below)
CUTF	Cutbank failure	**DF**	Dry Ford
FF	Fill failure	**WF**	Wet Ford
FP	Fill perched	**HCR**	Humboldt crossing
G	Gully	**LSB**	Log stringer bridge
L	Landing	**RRD**	Rocked Rolling Dip
IDE	inside ditch eroding	**SCR**	Spitler crossing
RA	Road abandonment	**CULVERT CONDITIONS**	
RC	Road construction	**CAM**	Culvert attachments missing (e.g. trash racks, downspouts, etc.)
RR	Road Reconstruction	**CD**	Damaged inlet or outlet
RD	Rolling dip	**CDR**	Ditch relief needed
SK	Skid trail	**CF**	Failed / failing
WB	Waterbar	**CFB**	Fish barrier
		CFD	French Drain
WLPZ and WATERCOURSES		**CNA**	Culvert not aligned
AP	Alternative practice	**CNG**	Culvert not installed to grade
FB	Fish barrier	**CE**	Outlet erosion
HE	Habitat enhancement	**CS**	Outlet shotgunned
IL	In lieu practice	**CP**	Culvert plugged
WD	Water drafting	**CU**	Culver undersized
WCD	Watercourse diversion		
WDP	Woody debris project		
IMPLEMENTATION PRIORITY (IP)			
HIGH	Mitigation applied in: 1st year after Harvest Document approval.		
MED.	Mitigation applied concurrent with operations affecting site.		
LOW	Mitigations applied prior to Harvest Document completion.		
POTENTIAL SEDIMENT DISCHARGE			
If located in the Region of the North Coast Regional Water Quality Control Board, provide the following information in the associated table for each Controllable Sediment Discharge Source (CSDS) map point			
• Potential Sediment Discharge (PSD): expressed in total cubic yards			

CalTREES THP ITEM #24 & 25– ROADS AND LANDINGS

ITEM #25

NOTE: If any item listed above is checked "YES" Provide:

- **Operations Instructions to the LTO,** in accordance with the respective rule requirement(s) in **SECTION II** of the THP.
- Any required **explanation and justification** should be included in **SECTION III**

Operation instructions to the LTO:
Existing Road Maintenance
(1) All roads will be out-sloped where feasible and outside berms will be removed.
(2) All roads will be limited to 16 feet in width.
(3) Minor cut bank slumps or failures on roads, where the road prism remains largely intact, are road maintenance activities.
(5) Spoils from road maintenance activities shall not be pushed into stream protection zones, drainages, swales, and/or over the slope at the discharge sites for any of the erosion control structures. Most, if not all of, such spoils shall be stabilized by incorporating into the road surface; any spoils not incorporated into the road surface shall be stabilized where transport to a drainage or watercourse is unlikely.
(6) The LTO shall take any other action deemed necessary to prevent concentration of water and overland flow on the road surface and to prevent the erosion of road cut banks and fills.
(7) Rock ford crossings shall only be used for hauling when dry at the time of use. If class IIIs are flowing at the time of use, a temporary pipe of a size capable of passing the entire flow shall be installed and covered with rock.
(8) All landings will be sloped and ditched to prevent water from accumulating on the landing, and properly drained so that landing and road drainage flows cannot transport erosive material to the WLPZ. If necessary, to prevent drainage flows from carrying erosive materials into the WLPZ, landings shall be treated by mulching with straw mulch, slash mulching or wood chips to a depth of 2 inches over all the exposed mineral soil. If insufficient wood chip is available, straw mulch may be substituted.
(9) Skid trails on slopes greater than 30% shall be mulched with logging slash, straw or wood chips, whichever is available. Where mulch is needed for ground cover and slash or wood chips are not available, certified weed free straw or rice straw will be used.
(10) To maintain waterbars, waterbar outlets that do not exit on naturally vegetated ground or on ground with enough organic material (such as mulch or slash) or rocks to disperse flows will have outlets armored.
(11) Upon completion of timber operations or before the start of each winter period after operations commence, whichever is first, the LTO shall break down the berm on the outside edge of all main roads (haul or skid) to allow drainage to freely move off the road running surface.
(12) From Aug 1st to October 15th prior to commencement of timber operations, sufficient erosion control materials, shall be retained on site in amounts sufficient to provide at least 2" depth of native slash with minimum 80% coverage.

CalTREES THP ITEMs 26 – WATERCOURSES

ITEM #26– WATERCOURSE LAKE PROTECTION ZONE (WLPZ) PROTECTION MEASURES

ITEM #26	**WATERCOURSES**

Per 14 CCR 916, 936, 956 – Intent of Watercourse and lake Protection [ALL DISTRICTS] – The purpose of this article is to ensure that timber operations do not potentially cause significant adverse site-specific and cumulative impacts to the beneficial uses of water, native aquatic and riparian-associated species, and the beneficial functions of riparian zones; or result in an unauthorized take of listed aquatic species; or threaten to cause violation of any applicable legal requirements. This article also provides protection measures for application in watersheds with listed anadromous salmonids and watersheds listed as water quality limited under Section 303(d) of the Federal Clean Water Act.

It is the intent of the Board to restore, enhance, and maintain the productivity of timberlands while providing appropriate levels of consideration for the quality and beneficial uses of water relative to that productivity…. Further, it is the intent of the Board that the evaluations that are made, and the measures that are taken or prescribed, be documented in a manner that clearly and accurately represents those existing conditions and those measures.

a. [X]Yes [☐] No	Are there any watercourses or lakes classified as a CLASS I through CLASS IV within or adjacent to the plan area? *(Check all that apply)*		
		Within plan area	Adjacent to plan area
	[X] Class I:	[X]	[X]
	[X] Class II:	[X]	[☐]
	[X] Class III:	[X]	[☐]
	[X] Class IV:	[X]	[☐]
	[X] Lakes:	[☐]	[X] **In-Lieu Practice**
	[X] Other (**Springs, Seeps**)	[X]	[☐]

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

b.[X]Yes [☐] No	Will Class III or IV watercourses be protected with a WLPZ or ELZ? **If YES, describe below**

LTO instructions: **See table and protection measures below**.

Watercourse description and protection measures to be applied: (14 CCR 916.5)

Watercourse Class	Side Slope (%)	Width (ft.)	Protection Measures	Notes
Class I	**<30**	**75**	**BDG**	**WLPZ**
	30 - 50	**100**	**BDG**	**WLPZ**
	50+	**150**	**ADG**	**WLPZ**
Class II	**<30**	**50'**	**BEI**	**WLPZ**
	30 - 50	**75'**	**BEI**	**WLPZ**
	50+	**100'**	**BEI**	**WLPZ**
Class III	**<30**	**25'**	**CFH**	**ELZ**
	>30	**50'**	**CFH**	**ELZ**
Class IV	**All**	**25'**	**CFI**	**ELZ**
Spring	**All**	**50'**	**BEI**	**Remains on surface w/ downstream connectivity**
Wet Meadow	**All**	**Transition Zone**	**BEI**	
Lake	**All**	**100' uphill from road edge**	**BEI**	**In-lieu Area – See Section II, Item 27, and Section III**

CalTREES THP ITEMs 26 – WATERCOURSES

Class I Watercourse: **Protection measures "B", "D", and "G" shall be provided. WLPZ shall be established at the following widths. 75 ft. for side slopes <30%, 100 ft. for side slopes between 30-50%, 150 ft. for side slopes >50%.**

"A" WLPZ shall be clearly identified on the ground by the RPF who prepared the plan, or supervised designee, with paint, flagging, or other suitable means prior to the preharvest inspection. Class I WLPZs will be established by the RPF at the widths indicated in the table above and shall be flagged with blue/white striped flagging prior to the pre-harvest inspection.

"B" WLPZ shall be clearly identified on the ground by an RPF or supervised designee, with paint, flagging, or other suitable means, prior to the start of timber operations. Class I WLPZs will be established by the RPF at the widths indicated in the table above and shall be flagged with blue/white striped flagging prior to the start of timber operations.

"D" To ensure retention of shade canopy filter strip properties of the WLPZ and the maintenance of a multi-storied stand for protection of values described in 14 CCR § 916.4(b) [936.4(b), 956.4(b)], harvest trees shall be sample marked, including a base mark below the cut-line within the WLPZ by the RPF, or supervised designee prior to the preharvest inspection. The remaining WLPZ shall be marked in advance of falling operations by the RPF, or supervised designee

"G" To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, at least 50% of the overstory and 50% of the understory canopy covering the ground and adjacent waters shall be left in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of operations. The residual overstory canopy shall be composed of at least 25% of the existing overstory conifers. Species composition may be adjusted consistent with the above standard to meet on-site conditions when agreed to in the THP by the RPF and the Director.

Class II Watercourse, Springs, Meadows & Lake: **Protection measures "B': "E': and "I" shall be provided. WLPZ shall be established at the following widths. 50 ft. for side slopes <30%, 75 ft. for side slopes between 30-50%, 100 ft. for side slopes >50%.**

"B" WLPZ shall be clearly identified on the ground by an RPF or supervised designee, with paint, flagging, or other suitable means, prior to the start of timber operations. Class II WLPZs will be established by the RPF at the widths indicated in the table above and shall be flagged with blue/white striped flagging prior to the start of operations in any given areas.

"E" To ensure retention of shade canopy filter strip properties and the maintenance of wildlife values described in 14 CCR 936.4 (b), a base mark shall be placed below the cut line of the harvest trees within the zone and shall be done in advance of timber falling operations by an RPF or supervised designee.

"I" To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, at least 50% of the total canopy covering the ground shall be left in a well distributed multi-storied stand configuration composed of a diversity of species similar to that found before the start of operations. The residual overstory canopy shall be composed of at least 25% of the existing overstory conifers.

Class III Watercourse: ***Class III watercourses shall be given a 25-foot ELZ for slopes less than 30% and a 50-foot ELZ or for slopes greater than 30% as per 14 CCR 936.4(c)(1).***

"C" In site-specific cases, the RPF may provide in the plan, or the Director may require, that the WLPZ be clearly identified on the ground with flagging or by other suitable means prior to the start of timber operations. Class III ELZs will be established by the RPF, or supervised designee at the widths equal to or greater than the widths indicated in the table above and shall be flagged with blue/white striped flagging prior to the start of operations.

The following limitations apply within the Class III ELZ:

1. **Within the boundaries of the ELZ, heavy equipment operations shall be limited to the following:**
    a. **Directional felling away from the watercourse and end lining from the ELZ boundary.**
    b. **Use of existing tractor crossings that are dry at the time of operations. The number of tractor crossings shall be kept to a feasible minimum, utilizing existing crossing locations wherever possible.**
    c. **Use of existing haul road crossings that are dry at the time of hauling.**

"F" Harvest trees within Class III ELZ will be marked both above and below the cutline with blue paint prior to operations.

CalTREES THP ITEMs 26 – WATERCOURSES

"H" At least 50% of the understory vegetation present before timber operations shall be left living and well distributed within the WLPZ to maintain soil stability.

Class IV Watercourse (Spillway and Overflow Channels): Class IV watercourses shall be given a 25-foot ELZ regardless of slope.

"C" In site-specific cases, the RPF may provide in the plan, or the Director may require, that the WLPZ be clearly identified on the ground with flagging or by other suitable means prior to the start of timber operations. Class IV ELZs will be established by the RPF, or supervised designee at the widths equal to or greater than the widths indicated in the table above and shall be flagged with blue/white striped flagging prior to the start of operations.

The following limitations apply within the Class IV ELZ:

1. **Within the boundaries of the ELZ, heavy equipment operations shall be limited to the following:**
   a. **Directional felling away from the watercourse and end lining from the ELZ boundary.**
   b. **Use of existing tractor crossings that are dry at the time of operations. The number of tractor crossings shall be kept to a feasible minimum, utilizing existing crossing locations wherever possible.**
   c. **Use of existing haul road crossings that are dry at the time of hauling.**

"F" Harvest trees within Class IV ELZ will be marked both above and below the cutline with blue paint prior to operations.

"I" To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, at least 50% of the total canopy covering the ground shall be left in a well distributed multi-storied stand configuration composed of a diversity of species similar to that found before the start of operations. The residual overstory canopy shall be composed of at least 25% of the existing overstory conifers.

Accidental depositions of soil or other debris in lakes or watercourses below the watercourse or lake transition line shall be removed immediately after deposition. If any limbs accidentally enter any of the watercourses they will be removed from the stream and placed on the bank in a stable manner.

c. [X]Yes [☐] No	Is there any tractor road watercourse crossings that require mapping per 14 CCR 1034(x)(7)
[☐]Yes [X] No	Will TRACTOR road watercourse crossings involve the use of a culvert? **If YES, per 14 CCR 914.8[934.8, 954.8](e) state the minimum diameter and length for each culvert.**

Map Reference Points (MRP)	Culver Diameter	Culvert Length

d. [☐]Yes [X] No	Is there a Master Agreement for Timber Operations (MATO) for Streambed Alteration Agreement (SAA) approved by the Department of Fish and Wildlife for any portion of this plan? MATO or SSA Number: _____ **If YES, provide a list of the crossings, water drafting sites, or other water features to be used during operations and provide the conditions to be utilized and or consider from the MATO or SAA as operational instruction to the LTO in SECTION II.**
MATO or SAA INSTRUCTIONS TO LTO	
Specific water feature under MATO or SAA (crossings, drafting sites, etc.)	Conditions of MATO or SAA to be utilized at each specific feature
e. [X]Yes [☐] No	Is this THP Review Process to be used to meet Department of Fish and Wildlife CEQA review requirements? **If YES, attach the required 1611 Addendum at the end of SECTION II and include any supporting information and analysis in SECTION III.**

CalTREES THP ITEMs 26 – WATERCOURSES

	List instructions to the LTO in SECTION II for installation, protection measures, and mitigation measures, per THP from instructions or CDF Mass Mailing (07/02/1999) "Fish and Game Code 1611 Agreements and THP Documentation."

In accordance with California Department of Fish and Game Code Section 1611, this THP is being submitted in accordance with Section 4581 of the Public Resources Code. Therefore, the following information fulfills the notification requirement of California Department of Fish and Game Code Section 1602.

Contact Person: Kevin Whitlock
P.O. Box 363
Nevada City, CA 95959
530 470 6115, 530 559 0901
underthetrees@att.net

Activity/Facility Description:

- **MP:1 - (Class I - R1 RD 350 Xing): Change the existing low water crossing by installing three temporary 12" CMPs, covered with clean rock to facilitate hauling activities.**
- **MP:1 - (Waterhole W-1): Removal of minor amounts of surface rock and vegetation along road, placement of clean rock for water truck pad adjacent to Class I for in-channel drafting, no impoundment or diversion.**
- **MP: 2 - (Waterhole W-2): Removal of minor amounts of surface rock and vegetation along road, placement of clean rock for water truck pad adjacent to Class I for in-channel drafting, no impoundment or diversion.**
- **MP:46 – (Waterhole W-3): Placement of clean rock for water truck pad adjacent to Lake for drafting. No impoundment or diversion.**
- **MP:29 (Class II (dry ford) Watercourse Crossings): Class II watercourse that is dry during the summer. If necessary, a trench plate will be used.**

All projects are tributaries to the Little Truckee River.

(a) The volume, type, and equipment to be used in removing or displacing anyone or combination of soil, sand, gravel, or boulders:

MP 1 - (Class I - R1 RD 350 Xing): It is anticipated that the volume of soil, sand, gravel, or boulders will be less than 35 cubic yards. The material removed will be the ¾" aggregate base used for the temporary crossing. No displacement of material is anticipated during the installation. This resulting material from the temporary crossing will be spread on the approaches to the low-water crossing. An excavator, backhoe, grader may be used to remove and spread this material.

This crossing is located on County Road 350. To prevent affecting water quality of this perennial tributary to Independence Creek, the US Forest Service in conjunction with the Lahontan WQCB provided the following specification being utilized for the USFS Outback Aspen Restoration Project. The temporary crossing will require three 12" squash culverts that will be installed and removed for one season of use. The squash culverts are appropriate to promote fish passage during the season in which they are in place. The crossing will be backfilled with 4 to 6-inch clean cobble, capped with 1.5-inch clean rock. Crossing approaches will be rocked with 3 inch plus, competent angular rock with the minimum binder necessary. for a minimum of 50 feet on each side. During the installation or removal, the area will be dewatered around the construction site using a gravity sock and hose/pipe. Draft hose intakes shall be fitted with filter designed to avoid drafting fish and other vertebrate species into the intake. This mesh/screen shall be maintained in a clean condition. Use suction strainers with screens less than 2 mm in size. Place draft suction strainer in a bucket to avoid substrate and amphibian disturbance. Draft from deepest water source, near bottom. Water will only temporarily be diverted around the site to allow for the installation or removal while maintaining flow.
After the season of use, the crossing and all associated material will be removed. The channel will be retained in the pre-existing condition.

MP: 1 (Waterhole W-1): Minor amounts of surface rocks and boulders will be moved to facilitate truck access. This material will be pushed to the side of the road, or used as curbing to prevent the truck from back into the water course; clean rock will be spread on the road. A dump truck may be used to spread this material.
MP:2 (Waterhole W-2): Minor amounts of surface rocks and boulders will be moved to facilitate truck access. This material will be pushed to the side of the road, or used as curbing to prevent the truck from back into the water course; clean rock will be spread on the road. A dump truck may be used to spread this material.

CalTREES THP ITEMs 26 – WATERCOURSES

MP:46 (Waterhole W-3): No soil, sand, gravel, or boulders will be removed. Only clean rock will be spread. A dump truck, may be used to spread this material.

MP: 29 (Class II (dry ford) Watercourse Crossings): Minor amounts of surface rocks and boulders will be moved to facilitate access. If water is present, a trench plate will be used. Heavy equipment will be used to install the trench plate.

(b) The volume of water, intended use, and equipment to be used in any water diversion or impoundment, if applicable:

- **MP:1 Class I - R1 RD 350 Xing): Water will only temporarily be diverted around the site to allow for the maintenance project. This will be done through the use of a gravity sock and hose/pipe.**
- **MP:1 (Waterhole W-1): No water will be diverted or impounded. Use of the water may include, but is not limited to, dust abatement and fire suppression activities. 1000 gal per day if necessary.**
- **MP:2 (Waterhole W-2): No water will be diverted or impounded. Use of the water may include, but is not limited to, dust abatement and fire suppression activities. 1000 gal per day if necessary.**
- **MP:46 (Waterhole W-3): No water will be diverted or impounded. Use of the water may include, but is not limited to, dust abatement and fire suppression activities. 1000 gal per day if necessary.**
- **MP:29 (Class II (dry ford) Watercourse Crossings): No diversion or impoundments (NA).**

(c) The equipment to be used in road construction: No new road construction is proposed. Excavator, backhoe, bulldozer, dump truck, skidder, grader, and/or water truck.

(d) The type and density of vegetation to be affected and an estimate of the area involved:

- **MP:1 (Class I - R1 RD 350 Xing): No vegetation to be affected.**
- **MP:1 (Waterhole W-1): The only vegetation proposed for removal are the grasses/forbes and brush adjacent to the watercourse. This area is less than 144 square feet in size, road width for backing in the water truck.**
- **MP:2 (Waterhole W-2): The only vegetation proposed for removal are the grasses/forbes and brush adjacent to the watercourse. This area is less than 144 square feet in size, road width for backing in the water truck.**
- **MP46: (Waterhole W-3): No vegetation to be affected.**
- **MP:29 (Class II (dry ford) Watercourse Crossings): Minor amount of vegetation may be removed to facilitate the use of the dry ford crossings. If water is present, a trench plate or railcar bridge will be used.**

(e) Locations: (See Operations Maps at the end of Section II for specific locations of these projects)

MP:1 (Class I - R1 RD 350 Xing): NW ¼, Section 23, T19N, R15E MDB&M: Latitude: 39°28' 59.75"N, Longitude: 120°17' 6.1"W
MP:1 (Waterhole W-1): NW ¼, Section 33, T19N, R15E MDB&M: Latitude: 39°29' 4.03"N, Longitude: 120°16' 58.17"W
MP:2 (Waterhole W-2): NW ¼, Section 35, T19N, R15E MDB&M: Latitude: 39°27' 34.99"N, Longitude: 120°17' 6.95"W
MP46: (Waterhole W-3): SW ¼, Section 35, T19N, R15E MDB&M: Latitude: 39°27' 4.93"N, Longitude: 120°17' 28.04"W
MP: 29 SW ¼, Section 9, T18N, R15E MDB&M: Latitude: 39°25' 39.16"N, Longitude: 120°19' 38.1"W

(f) A description of time period: Between August 1st and November 15th during the effective period of the THP.

Fish & Wildlife Resource Potentially Affected	g) Aquatic Species	h) Riparian Species
(Class 1- R1 RD 350 Xing):	**Yes**	**Yes**
(Waterhole W-1):	**Yes**	**Yes**
(Waterhole W-2):	**Yes**	**Yes**
(Waterhole W-3):	**Yes**	**Yes**
(Class II (dry ford) Watercourse Crossings):	**Yes**	**Yes**

(Class II Watercourse Crossings) map point 29, is usually dry during the summer.
(Waterhole W-1 & 2) is a permanent flowing stream that has sufficient flow to avoid depletion of pool habitat.

Independence Lake is a municipal water storage facility that remains in the ownership of the state of California. Water rights are held by the Truckee Meadows Water Authority (TMWA). Releases are made to maintain a minimum instream flow downstream from the lake of 2 ft3 /s.

CalTREES THP ITEMs 26 – WATERCOURSES

j) Mitigation Measures Proposed:

- **All water trucks will be fitted with a filter screen to ensure blockage of aquatic invasive species. Use suction strainers with screens less than 2 mm in size. Place draft suction strainer in a bucket to avoid substrate and amphibian disturbance. Draft from deepest water source, near bottom. Timber operations for the plan shall only occur between September 1st and November 15th.**
- **Prior to operations, the area will be surveyed by a qualified aquatic biologist. The work area will be netted off and any fish or amphibians will be safely moved to an area upstream or downstream of the project prior to initiating work. Nothing in the agreement authorizes the take of a state listed species.**

MP:1 (Class I - R1 RD 350 Xing): During the installation or removal, the area will be dewatered around the construction site.
MP:1 (Waterhole W-1): To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 inches with a width and length to accommodate the water truck. A brow log/rocks will be placed on the east side of the fill station to prevent the water trucks from backing into the waterhole. The screened drafting hose shall be placed within a five-gallon bucket within the waterhole to prevent impingement of frogs.
MP:2 (Waterhole W-2): To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 inches with a width and length to accommodate the water truck. A brow log/rocks will be placed on the east side of the fill station to prevent the water trucks from backing into the waterhole.
MP:46 (Waterhole W-3): To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 inches with a width and length to accommodate the water truck. A brow log/rocks will be placed on the north side of the fill station to prevent the water trucks from entering the lake.
MP: 29 (Class II (dry ford) Watercourse Crossings): shall be temporary dry tractor crossings. Use of the subject crossings shall be permitted according to the following restrictions:
1. The dry ford crossings shall not be used if water is present at the crossing site during the time of operations. If water is present, a trench plate will be installed.
2. The dry ford crossings will not be used if the National Weather Service forecasts a 30% or greater chance of precipitation within 24 hours. If during operations, the National Weather Service forecasts a 30% or greater chance of precipitation within 24 hours, the crossing will be removed according to specifications of (4) below. Operations utilizing this crossing, shall be planned to occur when the 24-hour forecast calls for conditions conducive to dry conditions.
3. As per 14 CCR 943.4(p)(4), crossings shall be removed upon completion of use, or by the first day of the winter period (November 15th, annually), whichever occurs first.
4. As per 14CCR 943.9 when watercourse crossings, other drainage structures, and associated fills are removed the following standards shall apply:
(a) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the logging road watercourse crossing to be removed.
(b)The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge. Exposed soil located between the watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, or other suitable treatment to prevent soil erosion and significant sediment discharge. This stabilization shall occur by mulching with logging slash, tree chips, or native pine needles to a depth of 2" covering 80% of the disturbed area.

Construction Procedures:

The following descriptions outline the basic plan of operations for each project.
MP:1 (Class I - R1 RD 350 Xing): Prior to installation, the area will be surveyed by a qualified aquatic biologist. The work area will be netted off and any fish or amphibians will be safely moved to an area upstream or downstream of the project prior to initiating work. During the installation or removal, the area will be dewatered around the construction site using gravity flex pipe and or pumping. Three 12" squash culverts that will be installed and removed for one season of use. The squash culverts are appropriate to promote fish passage during the season in which they are in place. To Install, place pipe in channel to grade either by hand or mechanically using an excavator, backhoe. The crossing will be backfilled with 4 to 6-inch clean cobble, capped with 1.5-inch clean rock. Crossing approaches will be rocked with 3 inch plus, competent angular rock with the minimum binder necessary, for a minimum of 50 feet on each side. To remove, pull gravel back, down to the pipe, Remove the

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pipe, either by hand or mechanically using an excavator, or backhoe. Spread gravel along the approach. The crossing must be removed prior to the winter period (November 15th).

MP:1 (Waterhole W-1): During the installation, boulders and large rocks will be moved to facilitate truck access, minor amount of vegetation will be pruned to allow access to the watercourse. A brow log/rocks will be placed on the east side of the fill station to prevent water trucks from backing into the waterhole. To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 Inches with a width and length to accommodate the water truck.

MP:2 (Waterhole W-2): During the Installation, a brow log/rocks will be placed on the north side of the fill station to prevent water trucks from backing into the waterhole. To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 Inches with a width and length to accommodate the water truck.

MP:46 (Waterhole W-2): During the Installation, a brow log/rocks will be placed on the north side of the fill station to prevent water trucks from backing into the waterhole. To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 Inches with a width and length to accommodate the water truck.

MP:29 (Class II (dry ford) Watercourse Crossings): Previously described in items (j), construction will be the opposite of the removal.

f. [☐]Yes [X] No	Are any exceptions provided under F & G code 1600 et seq., and made an enforceable part of plan? **If YES, per 14 CCR 923 [943,963](d) identify the exceptions and provide the enforceable standards as instructions to the LTO in SECTION II.**

g. [X]Yes [☐] No	Will new drainage structures and facilities on watercourses that support fish or listed aquatic species be constructed? **If YES, per 14 CCR 914.8[934.8, 954.8](c) and 923.9 [943.9, 963.9](c). Structures and facilities shall be fully described and allow unrestricted passage of all life stages of fish or listed aquatic species, and natural movement of bedload. Provide operational instructions to the LTO in SECTION II.**

A table has been provided (next page) to assist with listing your information. This table is consistent with the table provided within the online submission THP in CalTREES. Use of this table is optional.

See the map point table starting on page 32 of this THP for road points associated with the Streambed Alteration request.

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Per 14 CCR 923.9(e) – The location of all NEW permanent constructed and reconstructed, and temporary logging road watercourse crossings, including those crossings to be abandoned or deactivated, SHALL be shown on a map. If the structure is a culvert intended for permanent use, the minimum diameter of the culvert and the method(s) used to determine the culvert diameter SHALL be specified in the plan,	
h. [☐]Yes [X] No	Are there any NEW PERMANENT constructed logging road watercourse crossings requiring mapping?
[☐]Yes [X] No	Are there any NEW RECONSTRUCTED logging road watercourse crossings requiring mapping?
[☐]Yes [X] No	Are there any watercourse crossings to be ABANDONED or DEACTIVATED?
	If YES, to the above questions these crossing shall be shown on a map in section II
	Per 14 CCR 923.9(e) If any watercourse crossing has a culvert intended for permanent use, the minimum diameter of the culvert and the method(s) used to determine culvert diameter shall be stated in the plan. **Per 14 CCR 923.9(f) permanent watercourse crossings that are constructed or reconstructed SHALL accommodate the estimated 100-year flood flow, including debris and sediment loads.**
	Method for sizing crossing:
i. [☐]Yes [X] No	Is there any exception to flagging or otherwise identifying the location of any constructed or reconstructed road watercourse crossing prior to the pre-harvest inspection? **If YES, per 14 CCR 923.9[943.9, 963.9](j) provide the explanation and justification in SECTION III.**
j. [☐]Yes [X] No	Will other methods for diversion of overflow at culver crossings be utilized (<u>other than critical dips</u>) in the construction or reconstruction of logging road watercourse crossings which culverts? **If YES, per 14 CCR 923.9[943.9, 963.9](j) provide instructions to the LTO in SECTION II identifying the methods to be used for the diversion of overflow at watercourse crossings.**
Per 14 CCR 923.9[943.9, 963.9](k) watercourse crossings and associated fills and approaches SHALL be constructed and maintained to prevent diversion of stream overflow down the road, and to minimize fill erosion should the drainage structure become obstructed.	
k. [X]Yes [☐] No	Are there any existing watercourse crossings that are located on logging roads within the logging area?
[☐]Yes [X] No	Are there any watercourse crossing proposed for construction located on logging roads within the logging area?
	If YES, per 14 CCR 923.9[943.9, 963.9](k) identify the crossing and provide the methods to mitigate or address the diversion of stream overflow at the crossing.
l. [☐]Yes [X] No	Will rock be used to stabilize crossing outlets? **If YES, per 14 CCR 923.9[943.9, 963.9](k) Rock used to stabilize outlets of crossings shall be adequately sized to resist mobilization of soil and significant sediment discharge. The range of rock size shall be described within the plan as instruction to the LTO in SECTION II indicate the range of the rock dimensions to be used.**

m. [☐]Yes [X] No	Watercourse crossing proposed to be reconstructed or removed, are there any significant volumes of sediment accumulated upstream of the watercourse crossing? **If, YES per 14 CCR 923.9[943.9, 963.9](n) provide instructions to the LTO, in SECTION II, describing how the material will be stabilized, removed (the extent feasible), and in conformance with CDFW agreements, where applicable.**
n. [☐]Yes [X] No	Do logging road watercourse crossing drainage structures and other erosion control features have I high historical fail rate within the project area?
[☐]Yes [X] No	Do/will existing watercourse crossings utilizing a culvert have large amounts of fill material covering the culvert making up the crossing?
	If, YES per 14 CCR 923.9[943.9,963.9](o) drainage structures and erosion control features shall be oversized, designed for low maintenance, reinforced, or removed before the completion of timber operations or as specified in the approved plan.

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	Provide instruction to the LTO in SECTION II identifying these crossings, providing instruction of how these crossings will be treated.
Guidance on reducing the potential for failure at high risk watercourse crossings may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk crossings" (1st Edition, revised 10/27/14)	
o. [☐]Yes [X] No	Will any logging road watercourse crossing be removed? **If YES, provide instructions to the LTO, in SECTION II, describing the removal plan pursuant to the standards per 14 CCR 923.9[943.9, 963.9](p)(1)-(4)**

Per 14 CCR 923.7[943.7, 963.7](I)(2)(A)-(F) the description of water drafting site conditions and proposed water drafting activity shall include:
General description of proposed site: **MP:1 - (Waterhole W-1): On road above the watercourse with minor amounts of vegetation.** **MP: 2 - (Waterhole W-2): On road above watercourse with minor amounts of vegetation.** **MP:46 – (Waterhole W-3): Boat ramp at lake**
Watercourse Classification: **MP:1 - (Waterhole W-1): Class I** **MP: 2 - (Waterhole W-2): Class I** **MP:46 – (Waterhole W-3): Class I**
Drafting parameters including:
Month(s) of use – **August 1st through November 15th**
Estimated volume needed per day – **1000 gallons per day for each site, if necessary – 3000 total**
Estimated maximum instantaneous drafting rate and filling time – **Less than 100 gpm – 15 minuets**
Other water drafting activities in same watershed – **3 total**
Drainage area (acres) above point of diversion – **No impoundments or diversions**
Estimated: - **approximately 9,500 acres**
Unimpeded stream flow – **Yes, the watercourse will not be diverted or impounded.**
Pumping rate - **Less than 100 gpm, drafting rates at the watercourses shall be adjusted, dependent of flow at time of operations, so as not to dewater any watercourse or divert volumes of water that result in noncompliance with Fish and Game Codes (FGC) 5901 and 5937.**
Drafting duration - **once a day at each site**
A discussion of the effects on aquatic habitat downstream from the drafting site(s) of single pumping operations, or multiple operations at the same location, and at other locations in the same watershed: **There will be no significant adverse effects to fish and wildlife resources or other beneficial uses of water from water drafting. The watercourse will not be impounded or diverted so there is no recharge time. There will be no impact to aquatic habitat downstream form the drafting sites. These operation shave occurred in the past without detrimental effects.** **The alternative to drafting from the watercourse is drafting solely from the lake. The screened drafting hose shall be placed within a five-gallon bucket within the waterhole to prevent impingement of frogs/juvenile fish.** **Ocular estimate will be used to measure source streamflow prior to water drafting operations form the watercourse.** **During the installation, boulders and large rocks will be moved to facilitate truck access, minor amount of vegetation will be pruned to allow access to the watercourse. A brow log/rocks will be placed on the east side of the fill station to prevent water trucks from backing into the waterhole. To prevent sediment from entering the waterhole, the fill station will be rocked with 2-4-inch rock, no minus rock, to a depth of 2 Inches with a width and length to accommodate the water truck.** **Before commencing any water drafting operation, the RPF and the drafting operator shall conduct a pre-operations field review to discuss the water drafting measures in the plan and/or Lake or Streambed Alteration Agreement.**

CalTREES THP ITEMs 27 – WLPZ IN-LIEU OR ALTERNATIVE PRACTICES

ITEM #27– WLPZ IN-LIEU OR ALTERNATIVE PRACTICES

ITEM #27	**WLPZ IN-LIEU OR ALTERNATIVES**
Per 14 CCR 916.1[936.1, 956.1] (In-Lieu Practices) – In rule sections where provision is made for site specific practices to be proposed by the RPF, approved by the Director and included in the THP in lieu of a standard rule, the RPF shall: • Reference the standard rule • Explain and describe each proposed practice • Explain how it differs from the standard practice, • Explain and justify how the protection provided by the proposed practice is a t least equal to the protection provided by the standard rule. • Identify the specific location where it shall be applied. 14 CCR 1034(x)(15) and (16) Per 14 CCR 916.6[936.6, 956.6] (Alternatives) – Alternative prescription for the protection of watercourses and lakes may be developed by the RPF or proposed by the Director on a site specific basis provided the following conditions are complied with and the alternative prescription will achieve compliance with the standards set forth in 14 CCR 916.3[936.3, 956.3] and 916.4[936.4, 956.4](b) The alternative prescription shall include in the THP information per 14 CCR 916.6[936.6, 956.6](a)(1)-(3)	
a. [X]Yes [☐] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the prohibition of the construction or use of tractor roads listed below? Per 14 CCR 916.3[936.3, 956.3(c) Timber operators shall not construct or use tractor roads in a Class I, II, III, IV watercourses, wet meadows and other wet areas unless explained and justified in the plan by the RPF. Except at: • Prepared tractor crossing described in 14 CCR 914.8[934.8, 954.8](b) • Class III watercourse crossings dry at the time of use • At new and existing tractor road crossings approved as part of a Fish and Game Code Process (F&GC 1600 et seq.) **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
b. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the retention of non-commercial vegetation bordering and covering meadows and wet areas? 14 CCR 916.3[936.3, 956.3(d) **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
c. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Directional felling of trees within any WLPZ away from the watercourse or lake? 14 CCR 916.3[936.3, 956.3(e) **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
d. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the standard WLPZ(s) width(s) identified in 14 CCR 916.5[936.5, 956.5], Table I? **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**

CalTREES THP ITEMs 27 – WLPZ IN-LIEU OR ALTERNATIVE PRACTICES

e. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the protection of Class IV watercourse(s)? 14 CCR 916.4[936.4,956.4](c) and 916.5[936.5, 956.5], Table I **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**

f. [X]Yes [☐] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the exclusion of heavy equipment from the WLPZ except at those locations listed below? Per 14 CCR 916.4[936.4, 956.4(d)&(f) – Heavy equipment shall not be used in timber falling, yarding, or site preparation within the WLPZ unless such use is explained and justified in the THP and approved by the Director. Except at: • Prepared tractor crossing described in 14 CCR 914.8[934.8, 954.8](b) • Class III watercourse crossings dry at the time of use • Existing road crossings • New tractor and road crossings approved as part of a Fish and Game Code Process (F&GC 1600 et seq.) **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
g. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the establishment of ELZ(s) for Class III watercourses unless side slopes are, 30% and EHR is low? 14 CCR 916.4[936.4, 956.4](c)(1) **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
h. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Retention of at least 50% of the overstory canopy in the WLPZ? 14 CCR 916.5[936.5, 956.5](e)"G" **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
i. [☐]Yes [X] No	Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Retention of at least 50% of the understory in the WLPZ? 14 CCR 916.5[936.5, 956.5](e)"G" **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**
j. [☐]Yes [X] No	Are there any additional in-lieu or alternative practices proposed for watercourse or lake protection? **If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Proved the explanation and justification in SECTION III, (see table below)**

CalTREES THP ITEMs 27 – WLPZ IN-LIEU OR ALTERNATIVE PRACTICES

Explanation and justification table for in-lieu WLPZ practices. SECTION III This table is consistent with the table provided in the CalTREES online submission.				
Map reference point	Standard rule	Describe each proposed practice	Explain how proposed practice differs from the standard practice	How is the proposed practice equal to the standard rule?
A – North road and B - South road along lake.	**14 CCR 936.3 (c)**	**Use of Existing Tractor and Haul Road adjacent to, and within In-Lieu - Lake Protection Zone.**	**The proposed practice deviates from the standard rule by allowing equipment to enter within a standard a Class I WLPZ.**	**The fire hazard reduction work would not be possible without harvesting ladder fuels and salvage in the subject area. The conifer reduction will require the use of equipment due to the size and abundance of material removed.**

The proposed in-lieu tractor road and haul road would be utilized during the limited operating period (August 1st – November 15th, annually). The following protection measures will be adhered to when utilizing tractor or haul road and landings within the Lake Protection Zone:

(a) Heavy equipment use will be confined to the road. Most of the area will be treated by hand-crew.

(b) Timber operations within the In-Lieu - Lake Protection Zone, shall only occur in late summer/early fall (Sept. 1 – Nov 15th) annually.

(c) Should the National Weather Service call for a 30% or greater chance of precipitation during operations, use of the subject road(s) shall cease.

(d) No riparian vegetation will be removed other than vegetation required to accommodate crossing use and improve safety.

(e) Immediately following operation, areas of exposed soil greater than 800 sq. ft. within the In-Lieu Lake Protection Zone be stabilized by mulching with logging slash, tree chips, to a depth of 2" covering 80% of the disturbed area.

(f) No side-casting or blading of soil *and/or* woody debris off the road surface in the direction of the Lake.

(g) No equipment maintenance or refueling shall be conducted within 100 feet of any watercourse channel.

(h) No helicopter landings within the In-Lieu Lake Protection Zone.

(i) Following each year's operations and prior to the winter period, any disturbed earthen material outside of the normal road running surface shall be drained and slash packed or straw mulched to a depth of 2" covering 80% of the affected area to control erosion.

(j) Outside of the winter period, if rock is deemed necessary to create a stable operating surface, the following standards shall apply: 2"+ angular rock will be applied to a minimum depth of 2".

CalTREES THP ITEMs 28-29 – DOMESTIC WATER NOTIFICATIONS

ITEM #28-29 – DOMESTIC WATER NOTIFICATIONS

ITEM #28	**DOMESTIC WATER NOTIFICATIONS**
Per 14 CCR 1032.10 – The THP submitter shall provide notice by letter to all other landowners within 1,000 feet downstream of the THP boundary whose ownership adjoins or includes a Class I, II, or IV watercourse(s) which receives surface drainage from the proposed timber operations. The notice shall request that the THP submitter be advised of surface domestic water use from the watercourse, within the THP or within 1,000 feet downstream of the THP boundary. When required to notice by letter, publication shall also be given one time by the THP submitter in a newspaper of general circulation in the area affected by the proposed project. Such letter and publication shall notify the adjoining party: • of the proposed timber operation • describe its legal location • identify the name, if any, of the watercourse it may affect • request a response by the property owner within ten days of the post-marked date on the letter or the date of publication as appropriate The RPF may propose, with justification and explanation, an exemption to such notification requirements, and the Director may agree. Copies of either notice, proof of service and publication, and any responses shall be attached to the THP (SECTION V) when submitted. If domestic use is noted, the plan shall contain mitigations necessary to protect domestic water use. **THE PLAN SHALL NOT BE SUBMITTED UNTIL TEN DAYS AFTER THE ABOVE NOTIFICATION(s) HAVE BEEN COMPLETED**	
a. [X]Yes [☐] No	Are there any landowners with 1,000 feet downstream of the THP boundary whose ownership adjoins or includes a class I, II or IV watercourse(s) which receive surface drainage from the proposed timber operations? **If YES, the requirement of 1032.10. Proof of letter notification shall be included in THP SECTION V.** **If NO, notification exemption request below need not be answered.**
b. [X]Yes [☐] No [X] [☐] [☐]	Is an exemption to the notification requirements requested? (check notification requesting to be exempted) Letter Newspaper Both **If YES, provide the explanation and justification for the exemption request in SECTION III of the THP.**
c1. [☐]Yes [X] No	Was any information received in response to domestic water notifications indicating domestic water supplies may be present within or downstream of the project area?
c2. [☐]Yes [X] No	If YES, are there any additional mitigation measures needed beyond that required by standard watercourse and lake protection rules? **If YES, provide the site-specific instruction to the LTO in SECTION II.**

ITEM #29	**SENSITIVE WATERSHEDS**	
[☐]Yes [X] No	Is any part of the THP area within a Sensitive Watershed as designated by the Board of Forestry and Fire Protection? **If YES, identify the watershed and list the special rules, operating procedures or mitigation that will be used to protect the resources identified at risk.**	
WATERSHED	**SPECIAL RULE**	**MITIGATION MEASURES PROTECTING RESOURCES IDENTIFIED AT RISK**

CalTREES THP ITEM #30 – HAZARD REDUCTION

ITEM #30 – HAZARD REDUCTION

ITEM #30	HAZARD REDUCTION
Per 14 CCR 917, 937, 957 - Hazard reduction shall provide standards for the treatment of snags and logging slash in order to reduce fire and pest safety hazards in the logging area, to protect such area from potential insect and disease attack, and to prepare the area for natural or artificial reforestation while retaining wildlife habitat. Per 14 CCR 917.2, 937.2, & 957.2 – The following standards shall apply to the treatment of slash created by timber operations within the plan area and on roads adjacent to the plan area.	
a. [X]Yes [☐] No	Will slash treatment occur within 100 feet of the edge of the traveled surface of a PUBLIC road?
b. [☐]Yes [X] No	Will slash treatment occur within 50 feet of the edge of the traveled surface of PERMANENT private roads open for public use where permission to pass is not required?
c. [☐]Yes [☐] No	[SOUTHERN only] Will slash treatment occur within 50 feet of the edge of the traveled surface of SEASONAL private roads open for public use where permission to pass is not required?
	If YES to any of the above, slash created or trees knocked down by road construction or timber operations shall be treated by: (Select all that apply) [X] lopping for Fire hazard reduction per (14 CCR 895.1) [X] Piling and burning per (14 CCR 917.2, 937.2, 957.2(a)(1-3)) **Mastication of the logging slash is the preferred method of slash disposal. Every attempt will be made to minimize the logging slash throughout the project area by utilizing mastication. In the event piling and burning is used to dispose of slash, the following is required:** • **Slash piles created during timber operations will be treated prior to the expiration of the plan or submittal of the work completion report, whichever comes first.** • **Placement of burn/slash piles will not occur in 100-year floodplains of waterbodies within the Plan area.** • **Protection of Residual Trees - Slash burning operations and fire hazard abatement operations shall be conducted in a manner which will not damage residual trees and reproduction to the extent that they will not qualify to meet the silvicultural and stocking requirements of the rules.** • **Notification of Burning - The local representative of the Director shall be notified in advance of the time and place of any burning of logging slash. Any burning shall be done in the manner provided by Law.** • **Piles and concentrations shall be sufficiently free of soil and other noncombustible material for effective burning.** • **The piles and concentrations shall be burned at a safe time during the first wet fall or winter weather or other safe period following piling and according to laws and regulations. Piles and concentrations that fail to burn sufficiently to remove the fire hazard shall be further treated to eliminate that hazard. All necessary precautions shall be taken to confine such burning to the piled slash.** • **Local CDF/USFS dispatch will be notified of the time and place of all burning and all burning shall be done in the manner provided by law. Baring escapes, no burning will occur within the WLPZ of any class watercourse. No active ignition will occur within spring, wet area, or class I or II watercourse protection zones.** [X] chipping [☐] burying [☐] removal [X] **Other (Broadcast Burn)**

CalTREES THP ITEM #30 – HAZARD REDUCTION

	Broadcast burning is necessary to ensure ecosystem restoration. All units within the project border the Tahoe National Forest, Sierraville Ranger District and some units border the Truckee Ranger District. Fire breaks for burn units consist of existing roads used as fire lines, hand-lines and Independence Lake. **Eight units comprise the Phase 3 project (*See Section V for the complete Burn Plan*) and have or will receive mechanical thinning treatments. Fire trails will be constructed by tractors/masticators and /or hand-crews on slopes greater than 40% and by hand-crews adjacent to the lake, and along sensitive areas. Waterbreaks will be installed to the standards as set forth in Item #18** ***The landowner will be responsible fire trail construction.*** **The boundaries of which. are consistent with the mapped silvicultural area and are not outside of the logging boundaries. Fire trail construction will utilize existing roads and skid trail where possible.** **The landowner will be responsible for all burning. Burning will take place the year following harvesting and mastication operations. Spring broadcast burning will be done as snow drifts recede ensuring something less than total organic material consumption. Fall burning will utilize existing spring burn units, and fire trail construction for control. All air quality and smoke management permits shall be acquired as well as any project type burn permits, if required.** **In-lieu of a project-type burn permit, broadcast burning shall be done only after the first heavy rains and shall be completed before April 1 and broadcast burning may occur within cleared and/or natural firebreaks of not less than 10 feet in width adjacent to units and/or 4 feet in width if recessed back 50 to 100 feet away from fuel concentrations adjacent to units. Local CDF/USFS dispatch will be notified of the time and place of all burning and all burning shall be done in the manner provided by law. Baring escapes, no burning will occur within the WLPZ of any class watercourse. No active ignition will occur within spring, wet area, or class II watercourse protection zones.**
d. [X]Yes [☐] No	Are there any permanently located structures maintained for human habitation in the project area requiring slash treatment? **If YES, identify distance slash treatment will occur and indicate the method of treatment** [☐] Within 100 feet of permanent structure [☐] Removed [☐] Piled and burned per (14 CCR 917.2, 937.2, 957.2(a)(1-3)) [☐] Other (explain) [X] Between 100-200 feet of permanent structure [☐] Lopped for fire hazard reduction (per 14 CCR 895.1) [☐] removed [X] chipped [☐] Piled and burned per (14 CCR 917.2, 937.2, 957.2(a)(1-3)) [☐] Other (explain)
e. [☐]Yes [X] No	Has the RPF or Director determined there is an unusual fire risk or other hazard exists within the proposed project area? **If YES then lopping is required within 200-500 feet of permanent structures.**

f. [☐]Yes [X] No	Is the RPF proposing any alternatives to treating slash along roads and within 200 feet of structures. **If YES, the RPF shall explain and justify in the plan how equal fire protection will be provided.** **The explanation and justification shall include:**
	Description of the alternative treatment(s):
	Estimated amount / distribution of slash:
	Type of remaining vegetation:
	Topography:
	Climate:
	Degree of public exposure fire history:
	Provide a description of where the alternative will be used: (mapping area(s) is suggested)

CalTREES THP ITEM #30 – HAZARD REDUCTION

g. [X]Yes [☐] No	Will piling and burning be used for hazard reduction? **If YES, refer to 14 CCR 917.2, 937.2, 957.2(a)(1-3).** (select all that apply) [X] Piles created prior to September 1 shall be treated not later than April 1 of the year following its creation, or within 30 days following climatic access after April 1 of the year following its creation. [X] Piles created on or after September 1 shall be treated not later than April 1 of the second year following its creation, or within 30 days following climatic access after April 1 of the second year following its creation.
h. [☐]Yes [X] No	Is the RPF proposing any alternatives to piling and burning from those required in 14 CCR 917.2, 937.2, 957.2(a)(1-2)? **If YES, the RPF shall provide and explanation and justification in the plan to be approved by the director.**

CalTREES THP ITEMs #32-35 BIOLOGICAL RESOURCES

ITEM # 32 – BIOLOGICAL RESOURCES

ITEM #32	LISTED PLANT or ANIMAL SPECIES INCLUDING HABITAT
a. [X]Yes [☐] No	Are there any ANIMAL SPECIES, including their habitat(s), which are listed as rare, threatened or endangered under Federal or state law, or a sensitive species by the Board of Forestry associated with the THP area? **If YES, identify the animal species and the provisions to be taken for the protection of the species.**

CESA consultation for the Great Gray Owl occurred in 2012. Surveys were conducted in 2012-2015. In 2015, an active Bald Eagle nest was identified in Section 3, Helicopter Unit H-2 within the lsfs stand approximately 700 feet from the lake shore. The sighting was from a boat. No nest was located during the subsequent searches in 2019 and 2020. In 2013-2020, a pair of Greater Sandhill Crane visit the main meadow wet pond in Section 34. In 2015 and 2016, GSC confirmed nesting. In 2016, a solitary wolverine was observed on two separate occasions. Numerous Bald Eagles and Osprey have been sighted throughout 2019 and 2020 fishing in the lake and a northern goshawk was sighted near the southern property line Section 3, Tractor Unit-7. Currently, no sighting of T&E animal species in 2021.

To comply with Fish and Game Code Section 3503.5, timber operations will be preceded by pre-operations review of the site by an RPF and/or a qualified wildlife biologist. Review of the site will be conducted within 14 days of the onset of operations. The review will be conducted by the RPF responsible for marking the timber to be fell and/or a qualified wildlife biologist. Trees targeted for removal within the harvest area will be reviewed during the survey period which may be in conjunction with the mandatory on the ground, pre-operations meeting with the LTO.

Listed and Sensitive Animal Species Table

Animal Species	**Species type** Mammal / bird / reptile / amphibia / fish / Invertebrate	**FEDERAL** Threatened / endangered /	**STATE** Threatened / endangered / candidate	**BOF** Sensitive	**Protection Measures**
All listed Raptors	**Bird**	**All**	**All**	**All**	**Prior to operations within the raptor nesting season, a focused survey for raptor nests shall be conducted by a qualified biologist during the raptor nesting season (March 1 – September 1).**

Buffer Zone – active nest Per 14 CCR 939.3(b)

(b) The size of the Buffer Zone for each species shall be as follows:

(1) *For the Bald Eagle and Peregrine Falcon, the Buffer Zone shall be a minimum of ten acres in size*. The Director may increase the Buffer Zone beyond 40 acres in size so that Timber Operations will not result in a "take" of either species. The Director shall develop the Buffer Zone in consultation with the CDFW and the RPF.

(2) For the Golden Eagle, the Buffer Zone shall be a minimum of *eight acres in size*.

(3) For the Great Blue Heron and Great Egret, the Buffer Zone shall consist of the area within a 300-foot radius of a tree or trees containing a group of five or more active nests in close proximity as determined by the CDFW.

(4) *For the Northern Goshawk, the Buffer Zone shall be a minimum of five acres in size*. When explained and justified in writing, the Director may increase the size of the Buffer Zone to a maximum of 20 acres when necessary to protect nesting birds.

(5) *For the Osprey, the Buffer Zone shall be up to five acres in size*. When explained and justified in writing, the Director may increase the size of the Buffer Zone to a maximum of 18 acres when necessary to protect nesting birds.

Critical Period

939.3 (d) Critical periods are established for each species and requirements shall apply during these critical periods as follows:

(1) *For the Bald Eagle, the critical period is January 15 until either August 15 or four weeks after fledgling*, as determined by the Director. During this critical period, no Timber Operations are permitted within the Buffer Zone. Exceptions may be approved by the Director, after consultation with the CDFW to allow hauling on existing roads that normally receive use within the Buffer Zone during the critical period.

(2) For the Golden Eagle, the critical period is *January 15 until April 15 for active nests, and extended from April 15 until either September 1 or until the birds have fledged* for occupied nests. During this critical period, hauling on existing roads that normally receive use during the critical period is permitted. Other operations are not permitted within the Buffer Zones.

(3) For the Great Blue Heron and Great Egret, the period is from *March 15 through July 15*. During this critical period, Timber Operations within the Buffer Zone shall be staged with a gradual approach to the nest.

(4) *For the Northern Goshawk, the critical period is from March 15 until August 15*. During this critical period, no Timber Operations are permitted; however, new road construction is permitted if the Director determines that there is no feasible alternative. Exceptions may be approved by the Director after consultation with the CDFW to allow hauling on existing roads that normally receive use within the Buffer Zone during the critical period.

(5) *For the Osprey, the critical period is March 15 until May 1 for active nests, and is extended from May 1 to August 15 for occupied nests*. During the critical period, at Nest Sites where Osprey have shown historical tolerance to disturbance, Timber Operations are permitted using

a gradual approach to the nest, except that no cutting is permitted. Where Osprey are determined by the Director to be intolerant to Timber Operations, no Timber Operations are permitted within the Buffer Zone unless the Director determines that there are no feasible alternatives.
(6) For the Peregrine Falcon, the critical period is *February 1 until April 1 for active nests, and is extended until July 15 for occupied nests*. During the critical period, no Timber Operations are permitted within the Buffer Zone. However, when the Director, after consultation with the CDFW determines that Peregrines have shown a tolerance to hauling activity in the past, hauling on existing roads that normally receive use during the critical period within the Buffer Zone is permitted.

Operational Restrictions
939.3(e) The following requirements shall apply to helicopter logging during the critical period.
(1) For the Bald Eagle, helicopter Yarding within one-quarter mile radius of the Nest Tree is prohibited. Helicopter Yarding between one-quarter and one-half mile of the Nest Tree is permitted when Timber Operations are conducted so that helicopter Yarding gradually approaches the one-quarter mile radius limit.
(2) For the Golden Eagle and Northern Goshawk, helicopter Yarding within one-quarter mile radius of the nest is prohibited.
(3) For the Osprey, helicopter Yarding within one-quarter mile radius of the nest is prohibited between April 15 and June 15.
(4) For the Peregrine Falcon, helicopter Yarding is prohibited within one-half mile of the nest.

willow flycatcher *Empidonax traillii*	**Bird**	**N/A**	**Endangered**	**Sensitive**	**Prior to any grading or tree removal activities, a focused survey for Willow Flycatcher nests shall be conducted by a qualified biologist during the Willow Flycatcher nesting season (May 15 – August 1). If an active nest is identified, appropriate mitigation measures shall be developed and implemented in consultation with CDFW.**
Greater Sandhill Crane *Grus canadensis tabida*	**Bird**	**N/A**	**Threatened**		**Prior to timber operations, a focused survey for Sandhill Crane nests shall be conducted by a qualified biologist during their nesting season (February 1 - September 1). If an active nest is identified, appropriate mitigation measures shall be developed and implemented in consultation with CDFW.**
Pacific Fisher *Pekania pennanti pacifica*	**Mammal**	**Endangered**	**Threatened**	**Sensitive**	**The critical period is March 1 through July 31, where reproduction and caring for young occurs and when the highest potential for disturbance exists. During timber operations, if a den or a female with young is observed, operations shall cease within .25 mile. CAL FIRE and CDF&W shall be notified immediately as a means to evaluate proposed protection measures and the plan shall be amended to illustrate the den location and describe any additional protection measures prior to operations in the affected area.**
Gray Wolf *Canis lupus*	**Mammal**	**Endangered**	**Endangered**	**Sensitive**	**This THP lies outside the most recent wolf activity zone identified by the California Department of Fish and Wildlife. The critical period is March 1 through July 31, where reproduction and caring for young occurs and when the highest potential for disturbance exists. Prior to, or during timber operations, if any wolves, dens, or rendezvous sites are observed, operations shall cease within .25 mile of the sighting. CAL FIRE and CDF&W shall be notified immediately as a means to evaluate proposed protection measures and the plan shall be amended to illustrate the den location and describe any additional protection measures prior to operations in the affected area. Prior to timber operations, the RPFs**

					shall check the gray wolf website. Any significant changes shall be amended into the THP. https://www.wildlife.ca.gov/conservation/mammals/gray-wolf
Sierra Nevada Red Fox *Vulpes vulpes necator*	**Mammal**	**Candidate**	**Threatened**	**Sensitive**	**The critical period is March 1 through July 31, where reproduction and caring for young occurs and when the highest potential for disturbance exists. During timber operations, if a den or a female with young is observed, operations shall cease within .25 mile. CAL FIRE and CDF&W shall be notified immediately as a means to evaluate proposed protection measures and the plan shall be amended to illustrate the den location and describe any additional protection measures prior to operations in the affected area.**
California wolverine Gulo gulo luteus	**Mammal**	**Proposed Threatened**	**Threatened**	**Sensitive**	**The critical period is March 1 through July 31, where reproduction and caring for young occurs and when the highest potential for disturbance exists. During timber operations, if a den or a female with young is observed, operations shall cease within .25 mile. CAL FIRE and CDF&W shall be notified immediately as a means to evaluate proposed protection measures and the plan shall be amended to illustrate the den location and describe any additional protection measures prior to operations in the affected area.**
Sierra Nevada yellow-legged frog *Rana sierrae*	**Amphibia**	**Endangered**	**Threatened**	**Sensitive**	**Prior to the start of timber operations, for that year of operations, a survey to detect presence of amphibian species will be conducted by a qualified Biologist. If this species is observed, a buffer shall be established where all vegetation and ground disturbing activities within 25 feet of the observation and adjacent suitable stream/pond/lake habitat shall cease until the RPF consults with Cal Fire and the Department of Fish and Wildlife for appropriate protection measures.**
Lahontan Cutthroat Trout *Oncorhychus clarki henshawi*	**Fish**	**Threatened**			**(a) Heavy equipment use will be confined to the road.** **(b) Timber operations within the Class I WLPZ, shall only occur in late summer/early fall (Aug 1 – Nov 15th) annually.** **(c) Should the National Weather Service call for a 30% or greater chance of precipitation during operations, use of the subject road(s) shall cease.** **(d) No riparian vegetation will be removed other than vegetation required to accommodate crossing use and improve safety.** **(e) Immediately following operation, areas of exposed soil greater than 800 sq. ft. within the WLPZ and ELZ shall be stabilized by mulching with logging slash, tree chips, to a depth of 2" covering 80% of the disturbed area.**

					(f) No side-casting or blading of soil *and/or* woody debris off the road surface in the direction of the WLPZ. **(g) No equipment maintenance or refueling shall be conducted within 100 feet of any watercourse channel.** **(h) No helicopter landings within the In-Lieu area.** **(i) Following each year's operations and prior to the winter period, any disturbed earthen material outside of the normal road running surface shall be drained and slash packed or straw mulched to a depth of 2" covering 80% of the affected area to control erosion.** **(j) Outside of the winter period, if rock is deemed necessary to create a stable operating surface, the following standards shall apply: 2"+ angular rock will be applied to a minimum depth of 2".**
Western Bumblebee *Bombus occidentalis occidentalis*	**Insect**	**N/A**	**CESA Candidate Endangered**		**There are no known or recorded occurrences of WBUB in the plan area. Considering the improbability of identifying nests or hibernacula, occurrences are likely of foraging bees. There are no known WBUB nest sites or hibernacula on the plan area. All WBUB habitat elements may be found in the plan area, i.e. flowering plants in the genera used by WBUB for foraging, and suitable conditions for nests and hibernacula do exist within the plan area.** **No significant impact to this species is anticipated from the proposed project. Nest sites or hibernacula discovered during implementation of the THP shall be protected with equipment exclusion buffers of 25 feet. The landowner's objective is the creation, maintenance, or increase of the floral diversity that is a condition of healthy forests.**

b. [☐]Yes [X] No

Are there any PLANTS, including their habitat(s), which are listed as rare threatened or endangered under Federal or state law, or a sensitive species by the Board of Forestry associated with the THP area?

Research of the habitat requirements for special-status species indicated numerus species that have some potential to occur within the Independence Lake property of these, based on habitat, range and elevation only 28 species have potential to occur within project units. Of these 28 species several are confined to wetlands, seeps and riparian areas, which will not be impacted by the forest thinning activities the remaining species have some likelihood of occurring in the project area are listed below;

Plant Species		Federal T / E	State R / T/ E	CRPR
Geyer's sedge	*Carex geyeri*			4.2
Quincy lupine	*Lupinus dalesiae*			4.2
felt-leaved violet	*Viola tomentosa*			4.2
Sierra starwort	*Pseudostellaria sierrae*			4.2
clustered-flower cryptantha	*Cryptantha glomeriflora*			4.3
subalpine fireweed	*Epilobium howellii*			4.3

	obtuse starwort	*Stellaria obtusa*	4.3
	Western campion	*Silene occidentalis ssp. Occidentalis*	4.3
	Jones' muhly	*Muhlenbergia jonesii*	4.3
	narrow-petaled rein orchid	*Piperia leptopetala*	4.3
	Donner Pass buckwheat	*Eriogonum umbellatum var. torreyanum*	1B.2
	Plumas ivesia	*Ivesia sericoleuca*	1B.2
	Plumas alpine-aster	*Oreostemma elatum*	1B.2
	sticky pyrrocoma	*Pyrrocoma lucida*	1B.2
	Davy's sedge	*Carex davyi*	1B.3
	starved daisy	*Erigeron miser*	1B.3
	long-petaled lewisia	*Lewisia longipetala*	1B.3
	rayless mountain ragwort	*Packera indecora*	2B.2
	Cusick's speedwell	*Veronica cusickii*	4.3

Plant Species Table				
Plant Species	**FEDERAL** Threatened / endangered	**STATE** Rare / Threatened / Endangered	**CRPR** (1A, 1B, 2A, 2B, 3, 4)	**Protection measures**
All Species				**Prior to the start of timber operations, for that year of operations, a survey to detect presence of botanical species will be conducted by a qualified Biologist.** **If an occurrence of TESC species is identified, a 25' no operations buffer shall be flagged with Orange and White "Special Treatment" flagging around a sensitive plant population until site-specific and species-specific measures can be developed in consultation with the DFG and amended into the THP.** **Monitoring will take place during project activities and directly after project activities culminate in the vicinity of sensitive plant occurrences to ensure protective measures are sufficient**

NON-LISTED SPECIES IMPACTS	
c. [☐]Yes [X] No	Are there any NON-LISTED species which will be significantly impacted by the operation? **If yes, identify the species and the provisions to be taken for the protection of the species.**

Non-Listed Species Table		
Species	**Species type** Mammal / bird / reptile / amphibia / fish / Invertebrate	**Protection measures**
Non-listed raptors	**Bird**	**If an occupied nest of a non-listed raptor is discovered during timber operations, the timber operator will suspend all vegetation disturbing activities within 0.25 mile of the occupied nest until the RPF (or designee) with the advice of a biologist has designated the nest tree, perch trees(s), screening tree(s), and replacement trees(s), which shall be left standing and unharmed These and potentially other voluntary safeguard measures will be established to minimize**

		disturbance and provide the birds a reasonable opportunity to achieve a successful nesting attempt. Since RPF can designate and not cut any trees it so chooses, no amendment to the THP is necessary. If the RPF decides to file an amendment it shall be considered a minor amendment to the timber harvesting plan and shall reflect the voluntary safeguard measures implemented.

ITEM # 33 – SNAGS

ITEM #33	**SNAGS**
Per 14 CCR 919, 939, 959 – Timber operations shall be planned and conducted to maintain suitable habitat for wildlife species as specified by the provisions of Article 9 of the Forest Practice Rules. **Within the logging area all snags shall be retained to provide wildlife habitat with the exception of snags for safety reasons Per 14 CCR 919.1, 939.1, 959.1(a)-(f)**	
a. [X]Yes [☐] No	Are there any snags which must be felled for fire protection or safety reasons?
b. [☐]Yes [X] No	Will snags over 20 feet in height and 16 inches dbh be felled within 100 feet of a main ridge that is suitable for fire suppression? **If YES, ridge shall be delineated on a THP map.**
c. [X]Yes [☐] No	Will snags over 20 feet in height and 16 inches dbh be felled within 100 feet of all public roads, permanent roads, landings and railroads? (select all that apply) [X] Public road(s) [X] Permanent road(s) [X] Landing(s) [☐] Railroad(s)
d. [X]Yes [☐] No	Will snags be felled where federal and state safety laws and regulations require the felling of snags?
e. [X]Yes [☐] No	Will snags be felled within 100 feet of structures maintained for human habitation?
f. [X]Yes [☐] No	Will merchantable snags be felled in any location as provided for in the plan?
g. [X]Yes [☐] No	Will snags be felled as required to control insect or disease concerns?

ITEM # 34 – LATE SUCCESSIONAL FOREST STANDS

ITEM #34	**LATE SUCCESSIONAL FOREST STANDS**
a. [☐]Yes [X] No	Are any Late Successional Forest stands proposed for harvest? **If YES, describe measures to be implemented by the LTO to avoid long-term significant adverse effects on fish, wildlife and listed species known to be primarily associated with late successional forests.**
Describe:	

ITEM # 35 –OTHER WILDLIFE PROTECTION REQUIRED BY FOREST PRACTICE RULES

a. [☐]Yes [X] No	Are there any other provisions for wildlife protection required by the rules? **If YES, describe.**
Description:	

CalTREES THP ITEMs #36-38 – CULTURAL RESOURCES / GROWTH AND YIELD / SPECIAL INSTRUCTIONS

ITEM # 36 – CULTURAL RESOURCES

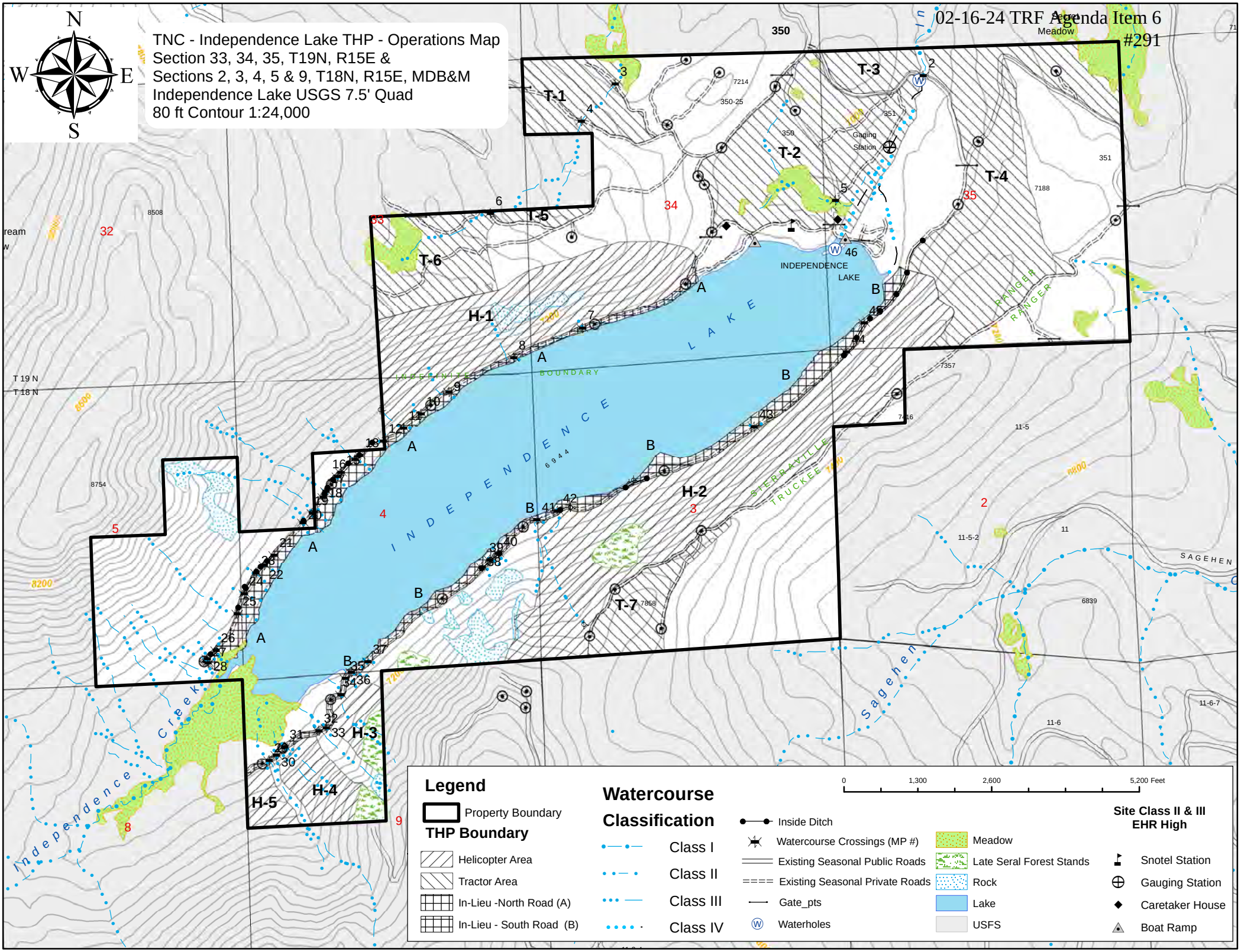
ITEM #36	ARCHAEOLOGICAL / HISTORICAL
a. [X]Yes [☐] No	Has an archaeological / historical survey been made for the THP area?
b. [X]Yes [☐] No	Has a current archaeological / historical records check been conducted for the THP area?
c. [X]Yes [☐] No	During pre-field research and surveys were archaeological or historical sites identified within the plan area? **If YES, THIS INFORMATION IS CONFIDENTIAL AND NOT AVAILABLE TO REVIEW AGENCIES, OTHER THAN CAL FIRE, AND THE GENERAL PUBLIC.** **RPF is advised to complete the Confidential Archaeological Addendum (CAA) and place in Section VI of the THP.**

ITEM # 37 – GROWTH AND YIELD INFORAMTION

[☐]Yes [X] No	Has any inventory or growth and yield information designated "TRADE SECRET" been submitted in a separate confidential envelope in Section VI of this THP? **If YES, THIS INFORMATION IS CONFIDENTIAL AND NOT AVAILABLE TO REVIEW AGENCIES.**

ITEM # 38 – SPECIAL INSTRUCTIONS OR CONSTRAINTS

CONDITION Flagging codes / water drafting / paint colors etc.	INSTRUCTION
	(A) **Timber operations for the plan shall only occur between September 1st and November 15th.** (B) **Prior to the start of timber operations for that year of operations, the RPF shall:** (1) **Inspect the plan area and identify any physical changes to the site. Any physical changes, such as landslides shall be amended on the THP map.** (2) **Update the scoping for species of concern or their habitat for any changes in listing status for species that may occur on the project area. Any significant changes shall be amended into the THP.**
	(C) **Logging** 1. **If any additional archeological sites, features or artifacts are discovered during timber operations:** a. **The person who made the discovery shall immediately notify the Director, LTO, RPF, or timberland owner of record.** b. **The person first notified in (a.) shall Immediately notify the remaining parties in (a.).** c. **No timber operations shall occur within 100 feet of the Identified boundaries of the new site until the plan submitter proposes, and the Director agrees to, protection measures pursuant to 14 CCR 949.2.** 2. **All Seasonal Public Roads shall remain open and passable during the timber operations. However, for the safety of the public, traffic may be temporarily stopped during falling and/or skidding operations and for the removal of road side trees.** 3. **Noise emanating from heavy equipment is prohibited on Sundays and Federal Holidays, and shall only occur:** **a) Monday through Friday, 6:00 am to 8:00 pm (during daylight savings)** **b) Monday through Friday, 7:00 am to 8:00 pm (during standard time)** **c) Saturdays, 8:00 am to 6:00 pm**
	Dust abatement practices shall be used during hauling operations on all dirt and gravel roads Prior to operations, flagging shall be refreshed as necessary to ensure it is readily visible to the operator.
	Notification of commencement of operations to the CDF, pursuant to 14 CCR 1035.4 shall be the responsibility of the RPF and shall be provided to the following contact: **NEVADA-YUBA-PLACER UNIT (NEU)** **Forest Practice Inspector** **CAL FIRE** **10242 Ridge Road** **Nevada City, CA 95959** **(530) 889-1430**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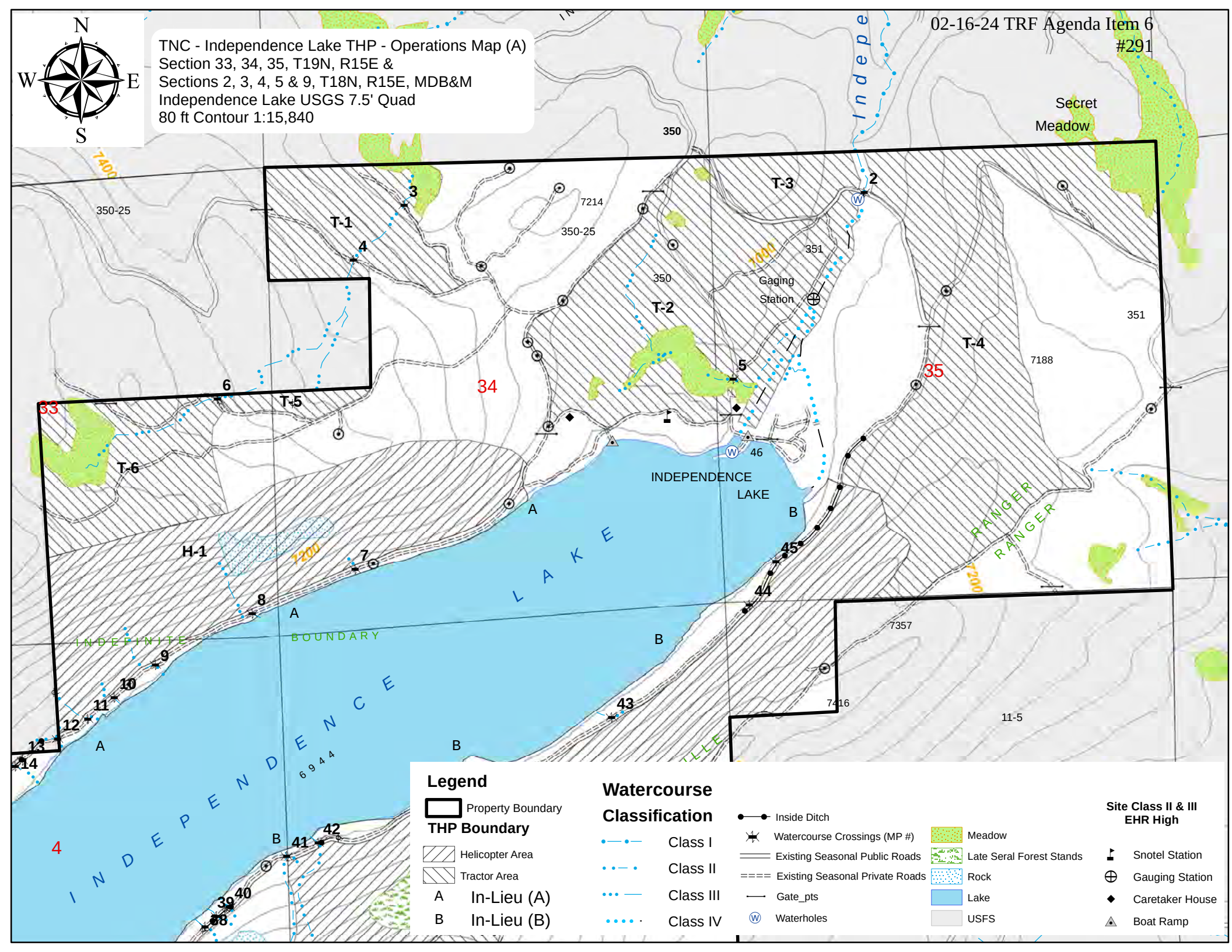
TNC - Independence Lake THP - Operations Map
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
80 ft Contour 1:24,000
T-1
T-2
T-3
T-4
T-5
T-6
T-7
H-1
H-2
H-3
H-4
H-5
INDEPENDENCE LAKE
INDEPENDENCE LAKE BOUNDARY
Gaging Station
Aspen Meadow
RANGER
STERRAVILLE
TRUCKEE
Sagehen
Independence Creek
T 19 N
T 18 N
Legend
Property Boundary
THP Boundary
Helicopter Area
Tractor Area
In-Lieu -North Road (A)
In-Lieu - South Road (B)
Watercourse Classification
Class I
Class II
Class III
Class IV
Inside Ditch
Watercourse Crossings (MP #)
Existing Seasonal Public Roads
Existing Seasonal Private Roads
Gate_pts
Waterholes
Meadow
Late Seral Forest Stands
Rock
Lake
USFS
0
1,300
2,600
5,200 Feet
Site Class II & III
EHR High
Snotel Station
Gauging Station
Caretaker House
Boat Ramp


02-16-24 TRF Agenda Item 6
#291
TNC - Independence Lake THP - Operations Map (A)
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
80 ft Contour 1:15,840
N
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S
Secret Meadow
Gaging Station
INDEPENDENCE LAKE
INDEFINITE BOUNDARY
RANGER
T-1
T-2
T-3
T-4
T-5
T-6
H-1
350-25
350
351
7214
7188
7357
7416
6944
11-5
Legend
Property Boundary
THP Boundary
Helicopter Area
Tractor Area
A In-Lieu (A)
B In-Lieu (B)
Watercourse Classification
Class I
Class II
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Inside Ditch
Watercourse Crossings (MP #)
Existing Seasonal Public Roads
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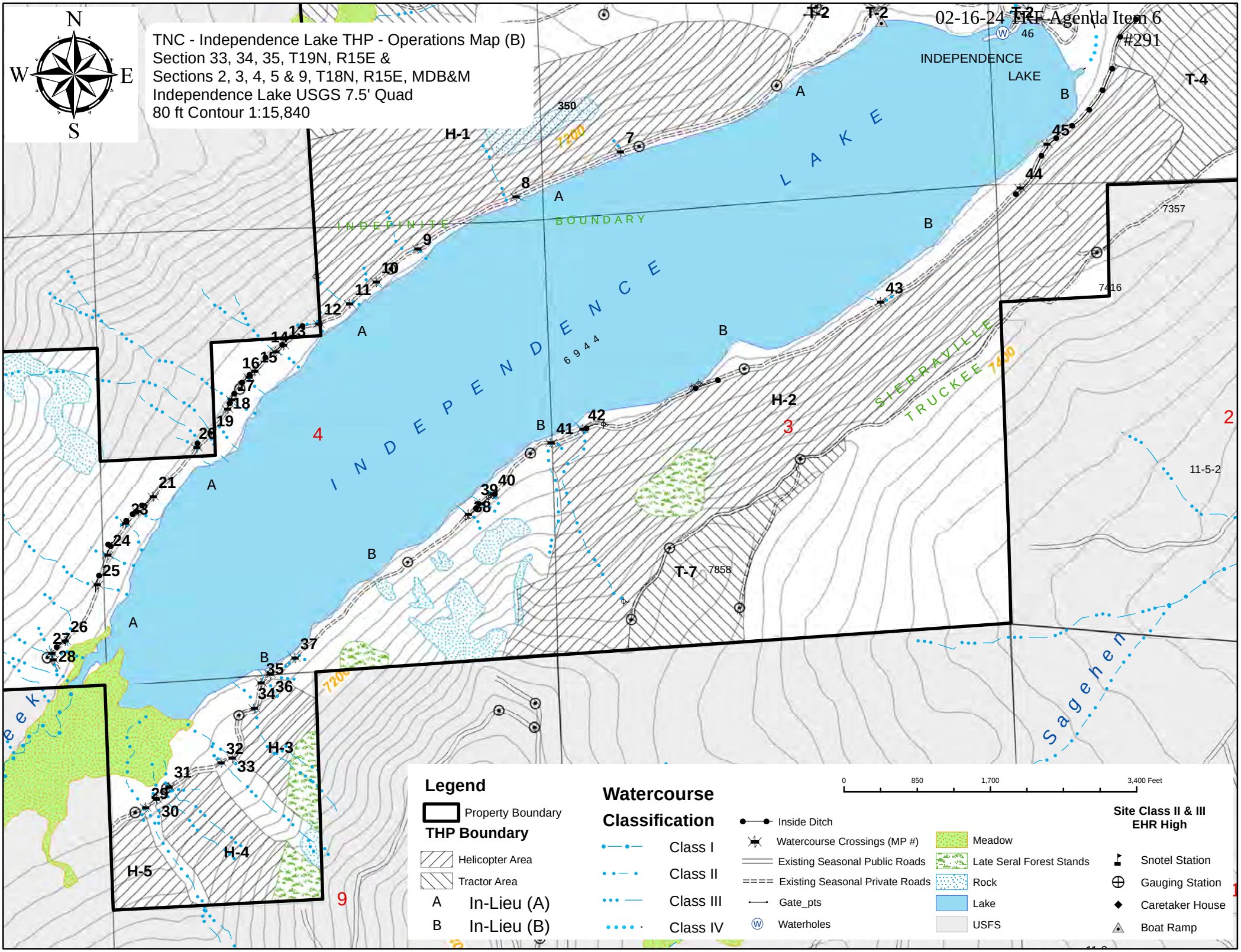
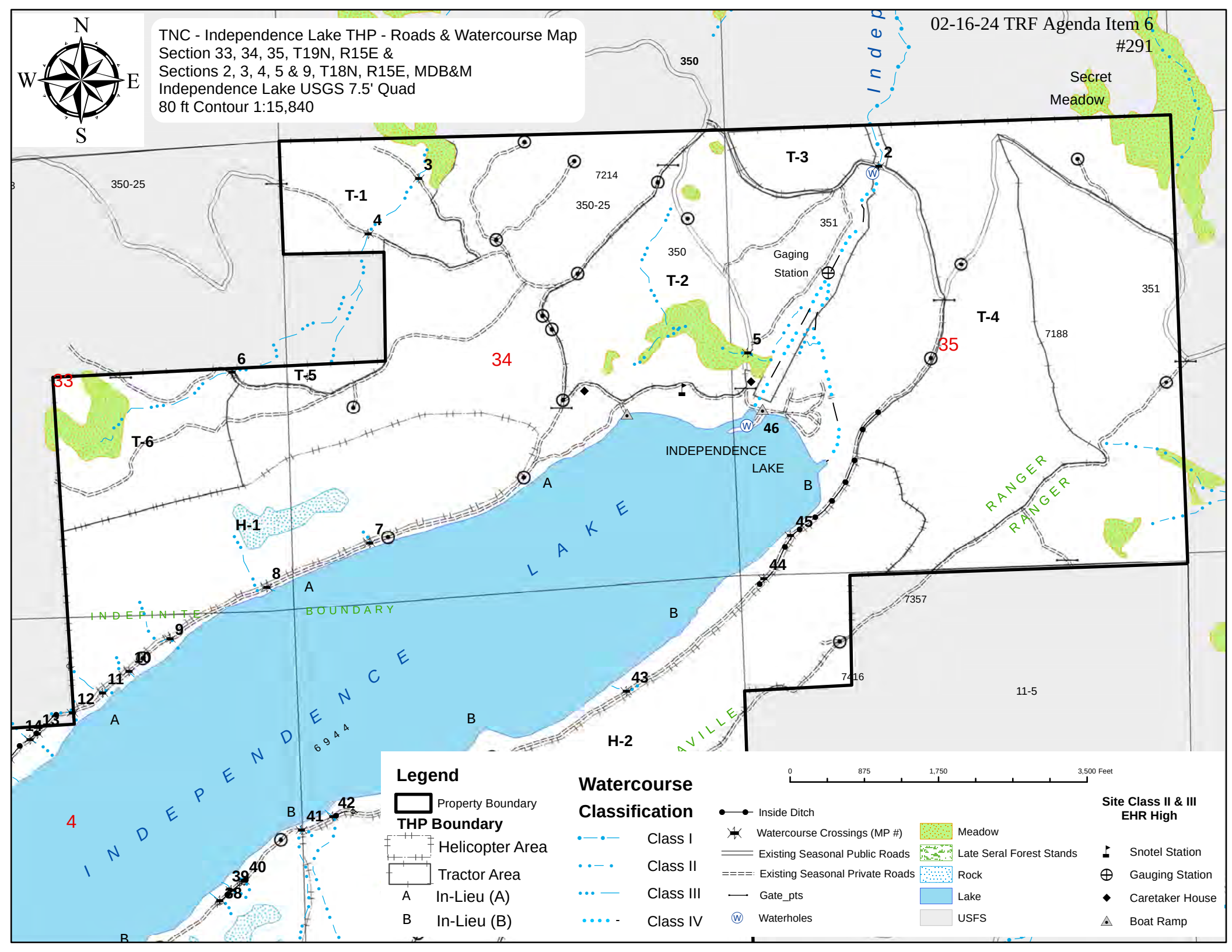
Late Seral Forest Stands
Rock
Lake
USFS
Site Class II & III EHR High
Snotel Station
Gauging Station
Caretaker House
Boat Ramp

TNC - Independence Lake THP - Operations Map (B)
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
80 ft Contour 1:15,840




02-16-24 TRF Agenda Item 6
#291
TNC - Independence Lake THP - Roads & Watercourse Map
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
80 ft Contour 1:15,840
N
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Gaging
Station
INDEPENDENCE
LAKE
INDEPENDENCE LAKE
INDEFINITE BOUNDARY
RANGER
RANGER
T-1
T-2
T-3
T-4
T-5
T-6
H-1
H-2
33
34
35
4
350
350-25
351
7214
7188
7357
7416
11-5
6944
Legend
Property Boundary
THP Boundary
Helicopter Area
Tractor Area
A In-Lieu (A)
B In-Lieu (B)
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Class II
Class III
Class IV
Inside Ditch
Watercourse Crossings (MP #)
Existing Seasonal Public Roads
Existing Seasonal Private Roads
Gate_pts
Waterholes
Meadow
Late Seral Forest Stands
Rock
Lake
USFS
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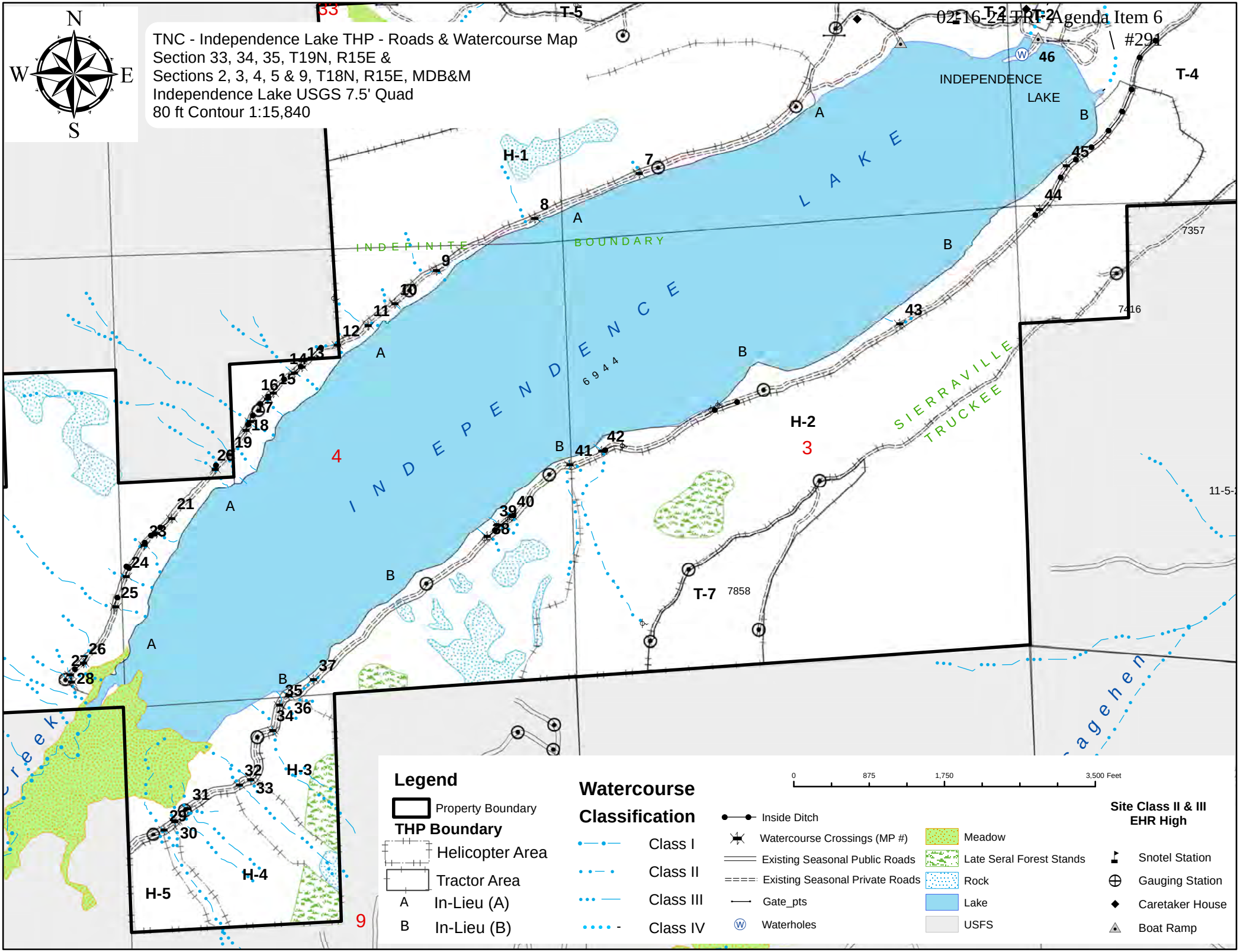
1,750
3,500 Feet
Site Class II & III
EHR High
Snotel Station
Gauging Station
Caretaker House
Boat Ramp

TNC - Independence Lake THP - Roads & Watercourse Map
Section 33, 34, 35, T19N, R15E &
Sections 2, 3, 4, 5 & 9, T18N, R15E, MDB&M
Independence Lake USGS 7.5' Quad
80 ft Contour 1:15,840



SECTION III – Supporting Documentation

Provide a general description of physical conditions of the plan site [14 CCR 1034 (jj)].

GENERAL DESCRIPTION

Independence Lake property consists of approximately 2,325 acres of forest land surrounding 680 acres of open water. The property is located in the eastern portion of both Sierra and Nevada County, approximately nine miles northwest of Truckee, California and accessed via Hwy 89 to the Fiberboard Road or Tahoe National Forest Route 7, and then on to Sierra County Road 350. The legal description of the property is as follows: Portions of Sections 33, 34, and 35, T19N, R15E, and Sections 2, 3, 4, 5 and 9, T18N, R15E, MDB&M, Sierra and Nevada County, CA. The property is located at latitude 39° 26’ 57” degrees north and longitude -120° 18’ 05” degrees west.

The land surrounding Independence Lake is owned by The Nature Conservancy and is managed to preserve the aquatic ecosystem including the native fish populations. Independence Lake is one of the most pristine areas in the northern Sierra Nevada. The lake is surrounded by conifer forest, montane chaparral, aspen groves, and meadows. Independence Lake provides a critical source of fresh water for Nevada’s second largest metropolitan area, Reno-Sparks and is the only lake in the Lahontan drainage (the watersheds of the Carson, Humboldt, Truckee, and Walker Rivers) that still has a full complement of native fishes. It is also the only lake in the Sierra Nevada or anywhere in California that supports a wild and self-sustaining lake population of the federally threatened Lahontan cutthroat trout.

The most common land use category in the vicinity of the project is private, non-industrial forest land, industrial forest land, and national forest land. Most of the lands within the planning watershed are owned by the USFS and are used for timber production, research, agriculture, and recreation.

The planning watershed and biological assessment area encompasses approximately 20,502 acres based on the ((Calwater v2.2 ID 8636.000203-Independence Lake (4,967 Ac.), Calwater v2.2 ID 8636.000201-Lower Independence Lake (8,760 Ac.), and Calwater v2.2 ID 8636.000302-Upper Sagehen Creek (6,775 Ac.)). These watersheds can be found on the USGS Independence Lake, Hobart Mills, and Sierraville 7.5-Minute Series Quadrangles.

The planning watershed is made up of three sub-watersheds within two counties. Ownership within the planning watershed includes; private industrial forestland of approximately 3% or 615 acres, Public ownership including national forestlands of approximately 71% or 14,556 acres, and other private non-industrial forestland of approximately 26% or 5,330 acres.

The long-term management goal for this property is to protect and enhance the existing resources. Forest restoration at Independence Lake seeks to promote the development of old-growth stand conditions, to enhance forest biodiversity, and to reduce the risk of high intensity wildfire.

Several aspects of the management goal will be accomplished by utilizing an ecological forestry approach to provide for the treatment of forest fuels to reduce the risk of catastrophic fire, and subsequent erosion of sediments into the lake and creeks to protect the federally threatened Lahontan cutthroat trout, one of only two such lake populations in the world, and restore declining aspen stands within the ownership at Independence Lake.

An ecological approach to forestry is based on three principles, retention of biological legacies, intermediate stand treatments (thinning from below and the re-introduction of prescribed fire) that enhance forest stand heterogeneity, and the allowance for the appropriate recovery periods (longer rotations) between regeneration harvests which provide for maximum sustained production of high-quality timber.

Management principles recognize that fire is both a viable fuel-treatment tool and an important jumpstart for restoring ecosystem processes stalled by accumulating surface fuels due to the absence of fire.

Appling these principles provide:

- A reduced land area in regeneration and forest stands that are in the early development stages and more prone to catastrophic, stand replacing fires.
- A means to reintroduce fire as an ecological process in areas unburned for decades as part of larger efforts to restore historical stand conditions and prevent mortality from wildfires.

- A reduction in visual impacts due to spatial variation in tree density, growth rates, and tree size.
- Larger trees and higher quality wood which provide ecological benefits and influence microenvironments.
- An opportunity to adjust present unbalanced age distributions.
- Higher quality wildlife habitat for nesting, roosting, and avoidance of predators.
- Increased carbon storage associated with larger trees.

The property is located in area that has been rank by Cal Fire as a Very High Fire Severity Zone based on inputs, such as fuel, slope, brush density (ladder), and tree density (crown cover). Fire threat is a combination of two factors; 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard).

Because the property is characterized by dense vegetation, and located at the crest of the Sierra Nevada range where wind is almost always present, a Wildland fire would likely result in a crown fire. Decades of fire suppression have resulted in extensive tracts of dense forest with dead material, fallen trees, ladder fuels, and brush.

High intensity wildfire is potentially very damaging to watershed function, reservoir water quality, biodiversity, and other natural resources. The primary activity to reduce the threat of catastrophic wildfire will be through the practice of silviculture.

"Silviculture" is a comprehensive term; a set of basic management methods applied in a number of integrated steps conducted in logical sequence to individual forest stands in order to regulate their spatial and age structure as well as their tree species composition.

Foresters use natural disturbances and stand development processes as models for silvicultural practices in broad conceptual ways. For example, even-aged harvest prescriptions are often described as analogs for stand-replacement disturbances, such as intense wild fires or wind storms (Smith et al. 1996). Individual tree and group selection practices are modeled on patterns of disturbance and mortality that involve the death of individual or small groups of trees within otherwise intact stands. Silvicultural thinning (from below) is designed to capture density dependent mortality before it occurs naturally. Hence, disturbance regimes and stand development processes are the conceptual foundation for the core of silviculture. However, silviculturalists have only recently begun to look beyond the type, intensity, and scale of disturbances to the specific ecological conditions created by natural disturbances and stand development and to more fully incorporate these conditions into silvicultural prescriptions (Kohm and Franklin 1997).

Incorporating an understanding of natural disturbance and stand development processes more fully into silvicultural practice is the basis for an ecological forestry approach (Franklin, Mitchell, Palik 2007).

TOPOGRAPHY

The project area units are located in throughout the property in those areas that have not been previously treated, or were treated, burned and require salvage operations. Aspects vary across the board. The project elevation is between 6,890 – 7,990 feet with slopes ranging from 0% to 40% for the ground-based equipment and 40% to 90% for helicopter operations.

The annual rainfall ranges from 30 to 40 inches. Snow fall is often over 200 inches with an average depth of accumulation of 12 feet. The average annual air temperature is 36° C to 42° F, and the frost-free season ranges from 25 to 125 days. The calculated erosion hazard rating **(EHR)** for much of the project area is Moderate, however, the entire project area will be identified as **High.**

SOILS

Soil is the basic resource of the forest, and is the key to the productivity of the site. A major goal for soil resource management is long-term maintenance of soil productivity and watershed protection. This requires avoiding management actions that would irreversibly impair soil productivity.

Forest landowners who wish to practice good stewardship on their lands need to assess the potential negative impact of their management activities on soil and water resources both on and off their property. Soil and water conservation are focused on the prevention of erosion and off-site movement of sediments, nutrients, and pesticides, the maintenance of normal water levels in wetlands, and the reduction of flood flows into estuaries.

It is necessary to monitor soil productivity to detect significant changes caused by management actions. Maintaining soil productivity also requires restoring or improving soils in areas where they have been degraded. Controlling soil erosion, compaction, and maintaining the nutrient balance during stewardship activities is vital to long-term soil productivity and protection of down-stream water quality. Practices include maintaining ground cover to reduce soil loss and limiting heavy equipment use on soils during wet weather.

According to the 1994 "Soil Survey Tahoe National Forest Area" published by the U.S.D.A., there are six primary soil series present within the project area. The primary soil series include Waca, Jorge, Aquolls, Tallac, Fugawee and Trojan. The following is a brief narrative of each type. **See Soils Map (Section V)**

Waca (WAE, WAF, WCF): The Waca series consists of moderately deep, well-drained soils on mountainsides. Pryoclastic materials influence Waca soils. These soils formed in residuum weathered from andesitic mudflows and rhyolitic tuff. Slope ranges from 2 to 75 percent.

The vegetation is mainly semi-dense to dense stands of high elevation mixed conifers consisting of Jeffrey pine, white fir, sugar pine, and western white pine in stands of red fir. Elevation is 6,000 to 9,000 feet. Permeability is moderately rapid. Available water capacity is low, runoff is medium to rapid, and the erosion potential is moderate to high.

Jorge (JXE, JWF, JWE): The Jorge series consists of moderately deep, well-drained soils on lake terraces and glacial moraines. These soils formed in lake sediments and material weathered from glacial deposits. Slopes range from 2 to 50 percent.

The vegetation is mainly Jeffrey pine and scattered sagebrush. Elevation is 5,500 to 6,400 feet. Permeability is moderate. Available water capacity low, runoff is medium and the erosion potential is high.

Aquolls (AQB): Aquolls consists of shallow and moderately deep, very poorly drained soils in drainage ways and on valley floors. These soils formed in residuum weathered from mixed alluvium. Slopes range from 0 to 15 percent.

The native vegetation is mainly wet meadow vegetation consisting of Carex (sedge family) and Juncas (rush family) with some alder, willow, and aspen. Elevation is 2,000 to 8,500 feet. Permeability is variable, Available water capacity varies from very low to moderate and runoff is very slow to ponded.

Tallac (TAE, TAF, TBE, THF): The Tallac series consists of deep, moderately well drained soils on lateral and terminal glacial moraines and outwash. These soils formed in material weathered from glacial deposits. Slope ranges from 2 to 60 percent.

The vegetation is mainly mixed conifers, consisting of red fir, white fir, Jeffrey pine, and some western white pine. Elevation is 5,500 to 9,000 feet. Permeability is moderately rapid. Available water capacity is very low, runoff is slow to rapid, and the erosion potential is high.

Fugawee (FVE, FTE, FME): The Fugawee series consist of moderately deep, well-drained soils on mountainsides. These soils formed in residuum weathered from basic igneous rocks, principally latite and andesite flows. Slopes range from 2 to 75 percent.

The vegetation is mainly high elevation mixed conifer, consisting of red fir, white fir, Jeffrey pine, Lodgepole pine, with an understory of mountain whitethorn, Greenleaf manzanita, prostrate Manzanita, and squaw carpet. Elevation is 6,000 to 8,000 feet. Permeability is moderate to moderately slow. Available water capacity is low, runoff is medium to rapid, and the erosion potential is high.

Tinker (TIE): The Tinker series consists of moderately deep, well drained soils on lateral and terminal glacial moraines and outwash. These soils formed in material weathered from glacial deposits. Slope ranges from2 to 75 percent.

The vegetation is mainly semi-dense stands of conifers, consisting of lodgepole pine, red fir, and western white pine with an understory of huckleberry oak. Elevation is 6,000 to 8,600 feet. Permeability is moderately rapid. Available water capacity is very low, runoff is medium to rapid, the erosion potential is high.

Trojan (TTF): The Trojan series consists of deep and very deep, well drained soils on mountainsides. These soils formed in residuum weathered from andesitic and basaltic conglomerate and breccia. Slopes range from 2 to 50 percent.

The vegetation is mainly semi dense stands of mixed conifers, consisting of Jeffrey pine, ponderosa pine, and white fir with bitterbrush and big sagebrush. Elevation is 4,800 to 6,400 feet. Permeability is moderately slow. Available water capacity is low to moderate, runoff is medium to rapid, and the erosion potential is high.

GENERAL WATERSHED & STREAM CONDITIONS

The planning watershed and biological assessment area encompasses approximately 20,502 acres based on the ((Calwater v2.2 10 8636.000203-Independence Lake (4,967 Ac.), Calwater v2.2 10 8636.000201-Lower Independence Lake (8,760 Ac.), and Calwater v2.2 ID 8636.000302-Upper Sagehen Creek (6,775 Ac.». These watersheds can be found on the USGS Independence Lake, Hobart Mills, and Sierraville 7.5-Minute Series Quadrangles. **(See Cumulative Impacts Area Assessment Map, Section IV)**

Independence Lake is fed by the headwaters of Independence Creek, south of Mount Lola and east of the Sierra Nevada crest. Downstream of Independence Lake, Independence Creek flows into the Little Truckee River, which is a part of the Truckee River watershed, a basin that encompasses approximately 3,100 square miles and includes the entire land area draining into Pyramid Lake originating in the Sierra Nevada.

Independence Lake is part of the North Lahontan hydrologic basin. Approximately the same size as Donner Lake at two and a half miles long and half a mile wide, with 680 acres of open water, and 5.8 miles of shoreline perimeter, Independence Lake is one of the larger alpine lakes in the Sierra with an elevation of 6,944 feet.

The approximately two-and-a-half-mile long basin in which Independence Lake lies is a valley formed from a former glacier on the east slopes of Mount Lola. The headwaters of Independence Creek flow into Independence Lake. Independence Creek flows out of the lake and downstream into the Little Truckee River. Upper Independence Creek is a small perennial stream that drains the upper Independence Lake basin. In the 1970s, a fish weir was installed in the creek to assist in management of the Lahontan cutthroat trout population.

Independence Lake holds the only native, self-reproducing lake population of Lahontan cutthroat trout in the Sierra Nevada. Lahontan cutthroat trout are federally listed as Threatened. The trout only spawn in the first one mile of Upper Independence Creek.

In general, the Class II watercourses are low gradient, often 1st order watercourse starting from springs and wet meadows with traditional bed, bank, and channel characteristics. Thick riparian vegetation (mountain alder and willow) is almost always present. These watercourses are in excellent condition despite the years of open grazing. The streams have a meandering form and exhibits erosion within a normal range of variation. Some large woody debris exists within the channel. In general, both the channel migration zones, and watercourse transition lines range from a few feet to several yards. The watercourses have a small amount of small sized cobbles, and moderate amounts of gravel and fine gavel.

The Class III watercourses are similar to the Class II watercourses as they are also low gradient, 1st order watercourse with traditional bed, bank, and channel characteristics. The Class III watercourses are only active during spring run-off. These watercourses appear to be in excellent condition with the exception of the existing road crossings. Some large woody debris exists within these channels.

The Class IV watercourses (Spillway and Over-flow channel) coming from the lake combine and then change to a Class I watercourse approximately 3,000 feet downstream where the Sierra County Road 351 crosses (Map Point 2). This channel has a gaging station and connect with a Class II coming from the Meadow. The Spillway channel maintains a fish barrier. A thick, dog-hair stand of small diameter lodgepole pine covers the channel and is a point of concern for fire.

VEGETATION & STAND INFORMATION

Timber harvest within the Watershed Assessment Area began around 1917 with railroad logging. Generally, the largest conifers were harvested via a system of steam donkey skid trails and railroad grades, evidence of which is still visible throughout the area. Sheep grazing began at the same time as timber harvest. The institution of aggressive fire suppression policies in the mid-1900s facilitated the replacement of shade-intolerant species, such as aspen, with shade tolerant species, such as white fir.

In general, six forest vegetation cover types can be found in the project area: grass, shrub, mixed conifer, true fir, conifer plantation and aspen. The grass cover type includes fen, wet montane meadow, and dry montane meadow. Conifer plantations are areas reforested after the fires in the 1960s. Trees planted are mainly ponderosa pine *(Pinus ponderosa)* with some Jeffrey pine *(Pinus jeffreyi)* along the south ridge line.

The shrub vegetation type occurs as both a climax type on soils too poor, rocky, or shallow to support conifer forests and as a post-fire or logging successional stage to mixed conifer forests on deeper, more productive soils. It is dominated primarily by tobacco brush *(Ceanothus velutinus)*, with greenleaf manzanita *(Arctostaphylos patula)*, Squaw-carpet *(Ceanothus prostratus)*, wax currant *(Ribes cereum)*, Bloomer's goldenbush *(Ericameria bloomeri)*, dwarf serviceberry *(Amelanchier pumila)*, and woolly mule-ears *(Wyethia mollis)*.

The mixed conifer vegetation cover type includes lodgepole pine *(Pinus contorta ssp. murrayana)* forest, eastside pine forest, and mixed conifer stands. Lodgepole pine forest type is found along Independence Creek and margins of meadows where soil is moist. The eastside pine forest is distributed mainly on south-facing slopes, east of Independence Creek. It is dominated by Jeffrey pine with isolated pocket of aspen. Mixed conifer stands are a mixture of several co-dominant species including Jeffrey pine, white fir *(Abies concolor)*, and red fir *(Abies magnifica)* with isolated pockets of aspen. Mixed conifer stands are found in higher elevations, with small islands of true fir forest cover type occurring on northeast- and northwest-facing, high-elevation slopes. Red fir is the dominant tree species, growing on deep, moist soils. White fir is the major associated species in the lower elevations; mountain hemlock *(Tsuga mertensiana)* is associated at higher elevations. Other associated species are western white pine *(Pinus monticola)*, lodgepole pine, Jeffrey pine, and western juniper. Aspen can be found in small isolated pockets ranging from a few individuals to groves of one acre. Most of the groves are impacted from White fir.

In 2008, the RPF conducted a timber inventory comprised of 232 variable plots, stratified over the property. The inventory provided the basis for determining forest stand types, stand conditions, fuel loads, and recommended management actions.

In 2019, plots were remeasured in several of the current tractor units. The data was entered into FVS for comparison and planning purposes. The 2008 inventory was grown to 2020. In summary, there are three (3) timber stand types; General Forest, Lodgepole, and Jeffry Pine, within the project area. Timber stand types are based on species composition, diameter distribution, and number of trees per acre. Each stand type is similar due to the macro-geographical location; eastside Sierra Nevada forest types, but each maintains subtle differences in species composition due to the micro geographical location within the watershed (i.e. aspect, elevation, and soil type).

Forest Type	Density TPA	Density TPA <12"	BA/Ac	QMD (All)	QMD (12"+)	Net MBdft/Ac	Net MCuft/Ac	Est. C Mt/Ac	Fuel Load Tons/Ac
GF	300	218	204	10	18	15.4	3.9	46.38	15
LP	548	300	339	10	17	23.1	5.1	62.84	19
JP	293	230	167	10	19	13.3	3.3	37.87	12
Ave.	**380**	**249**	**236**	**10**	**18**				

General Forest -GF

This timber type includes portions of Tractor Units T-1, T-2, T-5, T-6, T-7; Helicopter Units H-1, H-2, H-3, H-4, H-5; In-lieu (N) and In-lieu (S) adjacent to the lake.

The average age of the dominant trees is over 140 years with an average total height of 85 feet. White fir (Abies concolor) and Red fir (Abies magnifica) combined make up 72 percent of the stand composition, 40 percent and 32 percent, respectively. The remaining species mix is comprised of Jeffrey Pine (Pines jeffreyi) 13%, Lodgepole Pine (Pines contorta) 12%, Western White Pine (Pines moticola) 1%, and Aspen (Populus tremuloides) 3%.

The volume per acre is 15.4 thousand board feet (Mbf), or 3.9 thousand cubic feet (Mcf) per acre.

The standing dead trees are generally found as individuals or small groups within the overall stand structure and make up about five percent of the stand. Insect and disease include, but are not limited to Dwarf Mistletoe (Arceuthobium Spp.), Cytospora Canker (Cytospora abietis), Fir Engraver (Scolytus ventralis), White Pine Blister Rust (Cronartium ribicola). The dominant overstory is White fir and Red fir, with pine species scattered throughout. The average stand diameter at breast height (DBH) for all species is 10 inches, with a range of diameters from saplings (all species) to 60 inches (Red fir). The total height ranges from 2 to 122 feet tall. The canopy closure ranges from 5 to 45 percent. The basal area is variable, ranging from 100 to 320 sq. ft. per acre due to small openings and past logging. The current average basal area per acre is approximately 200 square feet. Regeneration is moderate to heavy in most areas with an average of 218 trees per acre less than 12 inches DBH or 73% of the stand, with an average 300 trees per acre for all diameter classes and species.

There is a moderate accumulation of needle litter and cones on the ground. The fuel load is considered light on the north facing slope with an estimate of 5 to 7 tons per acre. On the south facing slopes adjacent to the lake, the fuel load is considered moderate with an average 15 tons per acre due to isolated pockets of brush. The estimated sequestered "above and below ground" carbon in metric tons per acre is 46.

Lodgepole Pine - LP

This timber type includes portions of Tractor Units T-2, and T-4 adjacent to the meadow and Class IV watercourse.

The average age of the dominant trees is over 140 years with an average height of 76 feet. Lodgepole Pine (*Pines contorta*) makes up 83 percent of the stand composition. The remaining species mix is comprised of White fir (*Abies concolor*) 7%. Approximately 10% of this stand type is made up isolated pockets of standing dead trees. The standing dead trees are generally found as individuals or small groups within the overall stand structure and make up about five percent of the stand. Insect and disease include, but is not limited to Dwarf Mistletoe *(Arceuthobium Spp.),* Cytospora Canker *(Cytospora abietis),* Fir Engraver *(Scolytus ventralis),* White Pine Blister Rust *(Cronartium ribicola).*

The volume per acre is 23.1 thousand board feet (Mbf), or 5.1 thousand cubic feet (Mcf) per acre.

The dominant overstory is Lodgepole pine. The average stand diameter at breast height (DBH) for all species is 10 inches, with a range of diameters from saplings (all species) to 26 inches (Lodgepole pine). The total height ranges from 2 to 84 feet tall. The canopy closure ranges from 0 to 70 percent. The current average basal area per acre is approximately 339 square feet. Regeneration is moderate to heavy in most areas with an average of 300 trees per acre less than 12 inches, or 55% of the stand with an average of 548 trees per acre for all diameter classes and species.

The fuel load is considered moderate to high with an average 15 to 20 tons per acre. The large amounts of standing dead trees increase the fuel load considerably. The estimated sequestered "above and below ground" carbon in metric tons per acre is 63.

Jeffrey Pine - JP

This timber type includes portions of Tractor Units T-4 and a potion of Helicopter unit H-2, located on the east side of the lake.

The average age of the dominant trees is over 140 years with an average height of 82 feet. White fir (*Abies concolor*), Red fir (*Abies magnifica*) and Jeffrey Pine (*Pines jeffreyi*) combined make up 92 percent of the stand composition, 41 percent, 27 percent, and 24 percent respectively. The remaining species mix is comprised of Lodgepole Pine (*Pines contorta*) 7%. Approximately, 5% of this stand type is made up isolated standing dead trees. The standing dead trees are generally found as individuals or small groups within the overall stand structure and make up about five percent of the stand. Insect and disease include, but is not limited to Dwarf Mistletoe *(Arceuthobium Spp.), Cytospora Canker (Cytospora abietis), Fir Engraver (Scolytus ventralis), and White Pine Blister Rust (Cronartium ribicola).*

The volume per acre is 13.3 thousand board feet (Mbf), or 3.3 thousand cubic feet (Mcf) per acre.

The dominant overstory is an almost equal mix of White fir, Red fir, and Jeffrey pine. The average stand diameter at breast height (DBH) for all species is 10 inches, with a range of diameters from saplings (all species) to 40 inches (Jeffrey pine). The total height ranges from 2 to 98 feet tall. The canopy closure ranges from 0 to 35 percent. The current average basal area per acre is approximately 167 square feet. Regeneration is moderate in most areas with an average of 230 trees per acre less than 12 inches, or 78% of the stand with an average of 293 trees per acre for all diameter classes and species.

There is very little accumulation of needle litter and cones on the ground. The fuel load is considered light with an average 3 to 5 tons per acre. The estimated sequestered “above and below ground” carbon in metric tons per acre is 38.

Site potential can be classified either qualitatively, by their climate, soil, and vegetation into different site types or quantitatively, by their potential wood production. Site Productivity Class is best described as a species-specific classification of forest land in terms of inherent capacity to grow crops of trees and is usually derived from site index.

Per 14 CCR, 1060 - Site Classification, site information derived from the inventory suggests Site Class III (Dunning 1942). **The project area has been identified as Site Class II and III.**

Item 14, Silviculture

As previously described, two of the three timber stand types have over 70% of their density as measured in trees per acre (TPA) in diameters less than 12 inches. Examining the density of the three stand types, there are on average 380 TPA (not adjusting for the LP outlier). Of those 380 trees per acre, 249 are less than 12 inches DBH. The average stand diameter or quadratic mean diameter (QMD) is 10 inches. If we removed the shade tolerant species from the understory by thinning from below all stems less 12 inches DBH, the QMD would increase to 18 inches and the basal area per acre would be reduced by less than 35 square feet. If applied systematically, the stand will maintain site occupancy and the WHR for project area will move from 3 P, M, or D, to a 4 P, M or D and 4 S, M, or D, toward a 5 P or M.

Thinning from below in older stands is a practice widely accepted throughout Europe with over a century of experience and research; however, due to economic and social conditions, this practice has not been readily applied in the western U.S. Recently, this practice has been identified as an important tool in adaptive management (Franklin et.al. 2007) as we look for ways to reduce the threat of stand replacing wildfire by creating man-made disturbance which are similar to those create by natural disturbance from fire.

The following proposed silvicultural system takes into consideration the landowners' long-term goals, ecological characteristics of the stand, physical features of the terrain, and possible public concerns. The discussions below provide a summary of activities proposed.

Alternative Prescription - Selection with Sanitation and Salvage: Under the selection regeneration method, individual or small groups of trees, of all ages are to be removed to create mosaic stands of all aged groups. This prescription is used to meet the silvicultural and visual management objectives of the timberland owner. Selective harvests are designed to create or maintain uneven-aged stands. Un-even aged management attributes include the establishment and/or maintenance of a multi-aged, balanced stand structure, promotion of growth on leave trees throughout a broad range of diameter classes, and encouragement of natural reproduction.

The stands within the project area are characterized by scattered medium to large sized trees with a dense understory. The primary objective of this silvicultural method is to reduce the fire hazard, promote a healthy forest by reducing tree competition, and create small openings for natural regeneration. Guidelines for tree selection include removing the understory fuel ladder, marking high-risk, diseased trees, thinning from below, and spacing of future crop trees. This silvicultural method will consist of removing individuals or small groups of trees in all size classes (classic inverse "J" curve) to create a balanced uneven-aged stand structure. This method will promote the establishment of a multi-aged stand structure of healthy trees, increased growth throughout a broad range of diameter classes, and reduce the fire hazard.

Stocking standards for the Selection silvicultural method will be met immediately after each harvesting operation is complete.

(1) A description of the stand before timber operations, including:

(A) The RPF's professional judgment of the species composition of the stand before harvest.

Combining the three timber types, the species composition for the project area is on average 26% White fir *(Abies concolor),* 16% Red fir *(Abies magnifica),* 48% Lodgepole Pine *(Pines contorta),* 10% Jeffrey Pine *(Pines jeffreyi),* and less than 1% for both Western White Pine *(Pines moticola)* and Aspen *(Populus tremuloides).* Approximately 5% or 18 trees per acre are standing dead.

(B) The RPF's professional judgment of the current stocking on the area expressed in basal area or a combination of basal area and point count.

The average basal area per acre for the three timber types ranges from 100 to 340 sq. feet.

(C) The RPF's estimate of the basal area per acre to be removed from the stand during harvest.

The average basal area per acre to be removed in both live and dead trees will be less than 80 sq. feet. The majority of wood product volume will be in the form of biomass made up of trees less than 12 inches dbh.

(2) A description of stand management constraints such as animal, insect, disease, or other natural damage, competing vegetation, harsh site conditions, or other problems which may affect stand management. ·

As previously described, each stand type has approximately 5% standing dead. Dwarf Mistletoe *(Arceuthobium Spp.), Cytospora Canker (Cytospora abietis). Fir Engraver (Scolytus ventralis). and White Pine Blister Rust (Cronartium ribicola}* are common throughout the project area.

There are no management constraints, trees which currently show signs of disease or damage will be marked for removal.

(3) A statement of which silvicultural method in the current District rules is most nearly appropriate or feasible and an explanation of why it is not appropriate or feasible.

Group Selection is the method most nearly appropriate or feasible which would come close to meeting the on the ground application as presented in the plan. However, given the current stand conditions, large openings with 50 to 70 % of the trees less than 12 inches dbh, the Group Selection prescription is not the best fit as it does not allow for both fuel reduction and forest health treatment across the landscape.

(4) An explanation of how the proposed alternative prescription will differ from the most nearly feasible method in terms of securing regeneration, protection of soil, water quality, wildlife habitat, and visual appearance; and in terms of fire, insect and disease protection.

The flexibility of utilizing the proposed Alternative Prescription - selection with sanitation and salvage will allow the transition of stand conditions to better match the Sagehen prescription to the South and the USFS prescriptions to the north, thus maintaining structural connectivity across the landscape while meeting the landowner's goals of fuel reduction to protect sensitive species, and enhanced forest health.

On the ground, the RPF will have more flexibility to effectively treat the various stand conditions across the landscape. By combining selection with sanitation and salvage, there will be little difference in terms of securing regeneration, protection of soil, water quality, wildlife habitat, visual appearance; and fire, insect and disease protection than that of Group Selection.

(5) A description of the stand expected after completion of timber operations, including the following:

(A) The management objective under which the post-harvest stand is to be managed (evenage, unevenaged, or neither); the post-harvest stand is to be transitioned into a unevenaged, three-tiered stand with at least three distinct age classes.

(B) The desired tree species composition of the post-harvest stands and the RPF's judgment as to the remaining stocking after harvest expressed as basal area or a combination of basal area and point count.

The species composition of the post-harvest stand will change from that of the pre-harvest stand. Understory white fir, red fir and Lodgepole pine will be targeted for removal. Healthy Aspen, Jeffrey pine. and Western white pine will be the preferred leave trees. ·

The post-harvest basal area will range from approximately 50 to 260 square feet of basal area per acre. The post-harvest stocking standards shall meet the most closely associated standard, Selection.

(6) The treatment of the stand to be used in harvesting including:

(A) The guidelines to be used in determining which trees are to be harvested or left;

The guidelines to be used in determining which trees are to be harvested include those trees which show signs of disease. are of poor form, over-mature trees with flat tops, and a stand spacing between 20 and 50 feet depending on diameter. crown. and position in the stand. Small Aspen stands (less than one acre) exist throughout the project area. To promote Aspen restoration, Aspen stems shall be retained by the LTO and not damaged. All conifers (<12"DBH) within the confines of the Aspen stands will be targeted for removal. Hand crews will be used to remove small conifers from Aspen stands. Equipment located outside of the stand may be used for end-lining large trees. End-lining within the aspen stand will occur when soils are dry.

Understory fuels determined by the LTO: Biomass thinning will be done with conventional logging equipment, mastication, or by hand crews using chainsaws. Machines can be used on slopes up to 40%. Any steeper slopes will be treated by using chainsaws and hand crews.

Trees of 1 - 11.9 inches DBH shall be spaced on average 20-25 feet. Thinning from below shall include the removal of any diseased. damaged, and/or insect infested tree regardless of size, with the exception of designated wildlife or legacy trees; while retaining crop trees that are healthy. vigorous, and of the best phenotypic quality available in the pre-harvest stand.

Young, fast growing Jeffrey pines that have a good full top will be kept. White fir should be left only when the more desirable species are not present within a reasonable distance.

(1) The type of field designation to be followed, such as marking, sample marking of at least 20 percent of the trees to be harvested or left, professional supervision of fallers or other methods; and

All trees 12" DBH and larger targeted for harvested will be marked above and below the cut line with blue paint under the supervision of the RPF. Those trees less than 12" DBH will be determined by the LTO based on spacing guidelines. Arrows for directional felling may be added to direct felling away from existing regeneration. and to protect watercourses, sensitive areas or residual trees. A sample mark of the area will be marked prior to the Pre-harvest Inspection (PHI). Group B species will not be marked, as they are not targeted for removal.

(2) The site preparation and regeneration method and timetable to be used for restocking.

No site preparation or regeneration will be necessary to meet the stocking requirements. Stocking will be met immediately after completion of the operations. This alternative prescription will not have the practical on-the- ground

effect of a clear-cut. All trees to be harvested greater than 12" DBH shall be marked by, or under the supervision of an RPF prior to harvest.

When compared with the standard method identified in subsection (b)(3) above, this prescription will have an effect equal to or more favorable than such standard method would achieve in the areas of values relating to soil, the quality and beneficial uses of water, wildlife and fisheries. This prescription will not create a significant adverse change in range and forage, and recreation and aesthetic values; and will not reduce the after-harvest stocking standards or evenage prescription limitation below the most closely associated standard.

The harvest will result in stand conditions that will increase long term sustained yield as compared to the long term sustained yield achieved by utilizing the stocking standards of the method identified in subsection (b)(3); and will not lead to the direct or indirect conversion of the timberland to other land uses not associated with timber growing and harvesting.

A Broadcast Burn plan is included in the silvicultural treatment and included in Section V. Broadcast burning is a necessary activity to ensure ecosystem restoration.

Item 15, Pest

Although the project area is not within a Board of Forestry declared Zone of Infestation, several insect and disease can be found within the project area. Trees showing signs of infection or attack are targeted for removal.

To improve the health, vigor, and productivity of the stand, the silvicultural practice calls for removing those trees, which exhibit signs of insect, or disease. The following is a description of insect(s} and disease(s) found throughout the stand.

Cytospora canker (caused by *Cytospora abietis)* is a canker-causing fungus that infects true firs throughout their range. In California, white fir and red fir are the species most commonly attacked.

Generally, *Cytospora* is a weak parasite, but it can assume epidemic proportions when trees are injured, weakened, or predisposed by adverse conditions to attack. Dwarf mistletoe also commonly predisposes both red and white fir to attack by *Cytospora.* Dwarf mistletoe swellings provide openings in the bark for infection, and a favorable environment for growth and development of the fungus.

White pine blister rust *(Cronartium ribicola)* is the most serious damaging agent of white pines. The fungus needs the two alternate hosts to survive, spending part of its life on 5-needled pines and the other on *Ribes.* The disease occurs throughout the range of sugar pine and western white pine.

Western gall rust *(Endocronartium herknessii)* is probably the most commonly observed disease of two and three needled pines. Severe infections cause stem malformations, breakage, and tree killing. Trees exhibiting numerous galls, especially stem galls should be selectively removed, favoring uninfected or lightly infected trees during harvesting operations. Trees with deeply indented cankers on the upper stem should be removed.

Mistletoes *(Arceuthobium spp.* & *Phoradendron spp*) are a diverse group in the order Santales of shrubby, usually aerial, parasitic plants with fruits possessing a viscid layer. Mistletoe not only kills small trees but in time, a severe infection can even kill a mature, large tree. A severe infestation with many seriously infected trees can generate a high mortality rate.

Drought may increase mortality of mistletoe-infected trees more than four times that of uninfected trees. The attraction of bark beetles to mistletoe-infected trees depends on the species combination (mistletoe-tree-insect) and severity of infection.

Fir engraver (*Scolytus ventralis*) attacks red and white fir in California. Fir engraver adults and developing broods kill true firs by mining the cambium, phloem and outer sapwood of the bole, thereby girdling the tree.

Trees greater that 4" in diameter are attacked and often killed in a single season. Many trees weakened through successive attacks die slowly over a period of years. Others may survive attack as evidenced by old spike topped fir and trees with individual branch mortality.

Overstocking and the increased presence of fir on sites that were once occupied by pine species may also contribute to higher than normal levels of fir mortality. Several insect predators, parasites and woodpeckers are commonly associated with the fir engraver and may help in control of populations at endemic levels.

Pine engraver beetles *(Ips pini* (Say), *I. latidens* (LeConte), *I. paraconfusus Lanier,* and *I. emarginatus* (LeConte)) are most easily recognized by the rows of spines on the posterior ends of their wing covers. Pine engravers are especially common on ponderosa, lodgepole, knobcone, sugar, and western white pines.

Management activities designed to minimize engraver populations are generally only necessary on extremely dry pine sites and during drier-than-normal years. Under these conditions, the management of slash is critical. Thinning activities should be concentrated between the months of August and December so that slash will dry out and will no longer be suitable for the first generation of beetles flying in April.

Mountain Pine Beetle, (*Dendroctonus ponderosae)* attacks the bole of ponderosa, lodgepole, sugar and western white pines larger than about 8 inches DBH. Extensive infestations have occurred in mature lodgepole pine forests. Group killing often occurs in mature forests and young overstocked stands of ponderosa, sugar and western white pines.

The first sign of beetle-caused mortality is generally discolored foliage. The mountain pine beetle begins attacking most pine species on the lower 15 feet of the bole. Examination of infested trees usually reveals the presence of pitch tubes.

Attacking beetles transmit spores of blue stain fungi. As the fungi develop and spread throughout the sapwood it interrupts the flow of water to the crown. The fungi also reduce the flow of pitch in the tree, thus aiding the beetles in overcoming the tree. The combined action of both beetles and fungi causes the needles to discolor and the tree to die.

As stand susceptibility to the beetle increases because of age, overstocking, diseases or drought, the effectiveness of natural control decreases and mortality increases.

Item 24, Roads and Landings

The existing roads and landings within the property are of native surface. The roads and landings are in need of minor maintenance, in the form of vegetation removal. No new roads are proposed for use. All roads within the property are private roads maintained by the property owner with the exception of Sierra County Roads 350 & 351.

Landing Locations: There are existing landing as identified on the THP Operational Map, map point(s) ⊙ . The LTO and RPF shall identify any additional landing location before the start of operations. No special considerations are necessary for the use of the existing landings with the exception of those landing within the In-lieu (N) & (S).

- No equipment maintenance or refueling shall be conducted within 100 feet of any watercourse channel and lake.

Skidding operations will be limited* to *existing skid roads unless identified and flagged by an RPF or supervised designee prior* to *use. In* no *case, will the construction of skid trail be* on *slopes over 40%.

Item 26, Watercourse and Lake Protection Zone (WLPZ)

The RPF conducted the required field examination, analysis and mapping of the project area watercourse.

There are no sites along the watercourse where erosion and sediment production are ongoing and pose a significant risk to the beneficial uses of water. An historic landslide event occurred between units H-3 and H-4 at the top of the watercourse. Clear patterns of sediment movement are visible on high resolution digital elevation model data. Based on the abundance of well-established vegetation, the area appears to be stable. The helicopter treatment units are located outside and away from the scarp of the historic landslide.

No new facilities are proposed within the WLPZ of the Class II and Ill watercourses.

The protection measures inherent in the WLPZ designation are expected to provide sufficient safeguards for any potential habitat and water quality.

Item 27, WLPZ In-Lieu Practice

In-Lieu Practice: Use of Existing Tractor and Haul Road within the Class I Lake WLPZ. The In-Lieu/WLPZ for the Lake Protection Zone will be flagged 100' on the up-hill side of the existing roads for ease of operations. (Operations Map – In-lieu (N) and (S), map points A and B). Had a WLPZ been flagged at the standard width, the roads would have meandered in and out of the WLPZ creating an opportunity for confusion and operational issues. The WLPZ as proposed, exceeds the standard WLPZ width. Skid trails between the lake and the road, will be utilized by hand crews and tracked chippers. If these skid trails are deemed necessary for timber removal, they will be flagged by the RPF & LTO, and an amendment to the plan will be filed.

1. **Standard Rule: 14 CCR 936.3 (c), General Limitations Near Watercourses, Lakes, Marshes, Meadows, and Other Wet Areas**, "The timber operator shall not construct or use tractor roads in Class I, II, III, or IV watercourses, in the WLPZ, marshes, wet meadows, and other wet areas unless explained and justified in the Plan by the RPF, and approved the Director, except as follows: (1) At prepared tractor road crossings described in 934.8(b), (2) Crossings of Class III watercourses that are dry at the time of use, (3) At new and existing tractor road crossings approved as part of the Fish and Game Code process."

2. **Explain Proposed Practice:** A low impact harvester, forwarder, log truck, pick-up trucks, water-truck, track chipper and hand crews will use existing roads within the In-Lieu – Lake Protection Zone to remove ladder fuels and hazard trees to reduce the fuel load adjacent to the Lake (Operations Map – In-lieu (N) and (S), map points A and B).

   Utilization of the haul road as a skid trail will allow for removal of biomass material without construction of a new trail outside the standard WLPZ and provide less ground disturbance due to equipment and running surface.

The proposed in-lieu tractor/haul road would be utilized during late summer/early fall (September 1st – November 15th, annually) when the water level in the lake is at its lowest, often 20 to 50 feet from the high-water mark under the following cumulative conditions:

(a) Timber operations shall not occur within the in-lieu tractor roads under saturated soil conditions.

(b) The Class III watercourses crossing shall be dry at the time of use. Areas of standing water or seepage from the inside ditch will require a dip to be constructed at the same gradient as the watercourse channel and to a depth consistent with the channel. The dip will be rocked with drain rock to alleviate seepage.

Class II crossings that are wet at the time of operations will utilize a trench plate.

(c) Roads will not be used if the National Weather Service forecasts a 30% or greater chance of precipitation within 24 hours. Operations utilizing the in-lieu roads will be planned to occur when the 24-hour forecast calls for conditions conducive to dry conditions.

(d) As per 14CCR 943.9(p), when watercourse crossings, other drainage structures, and associated fills are removed the following standards shall apply:

(e) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the logging road watercourse crossing to be removed.

(f) The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge.

Exposed soil located between the watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, or other suitable treatment to prevent soil erosion and significant sediment discharge. This stabilization shall occur by mulching with logging slash, tree chips, or native pine needles to a depth of 2" covering 80% of the disturbed area.

3. **Explain How Proposed Practice Differs from Standard Practice:** The proposed practice deviates from the standard rule by allowing equipment to enter a Class I WLPZ and cross Class II watercourses on the existing haul road.

4. **Explain and Justify How the Protection Provided Is Equal to The Standard Rule and Provides for The Protection of the Beneficial Uses of Water:** The fire hazard reduction work would not be possible without harvesting ladder fuels and hazard trees within the subject area. The hazard tree reduction will require the use of equipment due to the size and abundance of material to be removed. The alternative is to cut the hazard trees and leave them as habitat structure. The following protection measures are equal to the standard rule and provide for the beneficial uses of water:

(a) Heavy equipment use will be confined to the road. Most of the area will be treated by hand-crew.

(b) Timber operations within the In-Lieu - Lake Protection Zone, shall only occur in late summer/early fall (Sept 1st – Nov 15th) annually.

(c) Should the National Weather Service call for a 30% or greater chance of precipitation during operations, use of the subject road(s) shall cease.

(d) No riparian vegetation will be removed other than vegetation required to accommodate crossing use and improve safety.

(e) Immediately following operation, areas of exposed soil greater than 800 sq. ft. within the In-Lieu Lake Protection Zone be stabilized by mulching with logging slash, tree chips, to a depth of 2" covering 80% of the disturbed area.

(f) No side-casting or blading of soil *and/or* woody debris off the road surface in the direction of the Lake.

(g) No equipment maintenance or refueling shall be conducted within 100 feet of any watercourse channel.

(h) No helicopter landings within the In-Lieu Lake Protection Zone.

(i) Following each year's operations and prior to the winter period, any disturbed earthen material outside of the normal road running surface shall be drained and slash packed or straw mulched to a depth of 2" covering 80% of the affected area to control erosion.

(j) Outside of the winter period, if rock is deemed necessary to create a stable operating surface, the following standards shall apply: 2"+ angular rock will be applied to a minimum depth of 2".

Item 28, Downstream Notification

The RPF provided a notice by letter to all landowners within 1,000 feet downstream of the proposed project boundary whose ownership adjoined or included a Class I, II, or IV watercourse(s), which receives surface drainage from the proposed timber operations. In addition to the letters, the RPF published an Affidavit of Publication with the Sierra Sun newspaper. **See Section V, for a sample of the letter and copy of the legal notice.**

• Truckee Ranger District - Tahoe National Forest, 10811 Stockrest Springs Rd Truckee, CA 96161

• Sierraville Ranger District - Tahoe National Forest 317 South Lincoln Street (P.O. Box 95) Sierraville, CA

96126

There was no response from the Affidavit of Publication. The USFS responded by phone and e-mail, stating that "there are no domestic water supplies on federal land". **See Section V, Request for Information on Domestic Water Supplies, sample of the letter, responses and copy of the legal notice.**

Item 32, Biological

The scoping process to identify species (Avian, Mammals, Aquatic, and Plants) and habitats (e.g. wetlands, vernal pools, serpentine outcrops) includes: surveys by qualified environmental consultants, an on-site inspection at various times throughout the preparation of the THP; CNDDB records check for listed species and associated habitats; review of the CNPS Inventory of Rare and Endangered Plants of California database; Tahoe National Forest Sensitive Plant Program Standard & Guidelines; the U.S. Fish and Wildlife Service's IPaC website (USFWS 2018, 2019), personal communication with landowners, wildlife biologists, botanists; Wetland Scientist, Geologists, and Hydrologist; professional experience; reconnaissance–level field surveys by the RPF, and published research as cited in Section IV, Cumulative Impacts Assessment, Item 2, Records Examined.

During the scoping process, the California Department of Fish and Wildlife Natural Diversity Data Base (CNDDB) was reviewed for the Independence Quadrangle and the surrounding eight quad areas. According to the CNDDB reports, the landowner, and the RPF, there are occurrences of rare, threatened, endangered, or sensitive plant / animal species within the project area.

The project area is within the range and has the potential suitable reproductive or foraging habitat for several listed, special- status, and potentially sensitive species. The following list identifies those species. Sensitive plant and wildlife species with a potential to occur on the project site were identified through a search of CDF&W's California Natural Diversity Database (CNDDB, September 2019 and September 2020), review of previous surveys in 2011 and 2015, reports and environmental documents (BLM, USFS), THPs filed with the Cal Fire, discussions with United States Forest Service and the landowners, and reviews of published literature (see sources below) and reconnaissance–level field surveys by the RPF.

"Special-status Plants & Animals" is a broad term used to refer to all the taxa inventoried by the CDF&W's CNDDB, regardless of their legal or protection status. The following is an analysis of special status species identified in Section IV that may occur within the Biological Assessment Area. See Section IV, Biological Assessment for detailed description of the species identified. **All mitigations are described below and are also found in Section II, Item(s) 32 and Section IV, Biological Assessment.**

Species List Identifier

Federal

FE –Listed as Endangered under the federal Endangered Species Act.
FT – Listed as Threatened under the federal Endangered Species Act.
FPE – Petitioned for federal listing as Endangered
MNB – USFWS Migratory Nongame Birds of Management Concern
BLM – Bureau of Land Management, Sensitive Species
FS – USFS, Sensitive Species
- No federal status

State

CE – California listed, Endangered
CT – California listed, Threatened
FGC – Considered for listing - CESA
CCR – Calif. Code of Reg. Title 14, Fully Protected Species
CFP – DF&W Code, Fully Protected Species (3511, 4700, 5050)
CSC – DF&W, Species of Special Concern
CDF – Dept. of Forestry, Sensitive Species
CRPR – California Rare Plant Rank (CRPR) designations:
1B Plants rare, threatened or endangered in California and elsewhere.
2 Plants rare, threatened or endangered in California, but more common elsewhere.
3 Plants for which more information is needed – a review list.
4 Plants of limited distribution – a watch list.
California Rare Plant Rank threat categories:
.1 Seriously endangered in California.
.2 Fairly endangered in California.
.3 Not very endangered in California. No state status

Species List (AVIAN, MAMMALS, AQUATIC, PLANTS)

AVIAN

American Peregrine Falcon *(Falco peregrinus anatum)*	FS/CE/FP
Bald eagle *(Haliaeetus leucocephalus)*	CE/CDF/CFP/FT/BLM
California Spotted Owl (Strix occidentalis occidentalis)	FS/MNB/CSC
Great Gray Owl *(Strix nebulosa)*	FS/CE/CDF
Northern goshawk *(Accipiter gentiles)*	FS/MNB/CSC/CDF
Willow Flycatcher *(Empidonax trailii)*	FS/CE/CDF
Osprey *(Pandion haliaetus)*	FS/CSC/CCR
Greater Sandhill Crane *(Grus canadensis tabida)*	CT

MAMMALS

Pacific Fisher *(Martes pennati pacifica)*	FE/CT/FS/BLM/CSC
Gray wolf *(Canis lupus)*	FE/CE
Sierra Nevada red fox *(Vulpes I Pac necator)*	FS/CT
California Wolverine *(Gulo I Pac luteus)*	*FS/CT/CFP*
Sierra Nevada mountain beaver *(Aplodontia rufa californica)*	CSC
Sierra Nevada Snowshoe Hare (*Lepus americanus tahoensis)*	CSC
American Pika *(Ochotona princeps)*	FGC

Pale Townsend's big-eared bat *(Corynorhinus townsendii)*	FS/BLM/FGC/CSC
Yuma myotis (*Myotis yumanensis)*	BLM
Long-eared myotis (*Myotis evotis*)	BLM
Spotted bat (*Euderma maculatum*),	BLM/CSC
Fringed myotis (*myotis thysanodes)*	BLM/CSC
Small-footed myotis (*Myotis ciliolabrum*)	BLM

AQUATIC

Sierra Nevada yellow-legged frog (Rana sierrae)	FE/FS/CSC/CE
Lahontan Cutthroat Trout (Oncorhychus clarki henshawi)	FT
Southern Long-toed Salamander (*Ambystoma macrodactylum sigillatum)*	CSC
Mount Lyell Salamander *(Hydromantes platycephalus)*	*CDFW Watch List*

INSECT

Western Bumblebee (Bombus occidentalis occidentalis)	CESA Candidate (Endangered)

PLANTS

Woolly-leaved milk vetch (Astragalus whitneyi var. lenophyllus)	CRPR 4.3
Moonwort species (*Botrychium ascendens*)	CRPR 2.3
B. crenulatum,	CRPR 2.2
B. minganense	CRPR 2.2
B. montanum	CRPR 2.1
Thread-leavedbeakseed (*Bulbostylis capillaris*)	CRPR 4.2
Davy's sedge (*Carex davyi (constanceana*)	CRPR 1B.3
Geyer's sedge (*Carex geyeri)*	CRPR 4.2
Mud sedge (*Carex limosa*)	CRPR 2.2
Woolly fruited sedge *(Carex lasiocarpa)*	CRPR 2.3
Fell-fields claytonia (*Claytonia megarhiza*)	CRPR 2.3
Clustered-flower cryptantha (*Cryptantha glomeriflora*)	CRPR 4.3
Clustered lady's slipper (*Cypripedium fasciculatum*)	CRPR 4.2
English sundew (*Drosera anglica*)	CRPR 2.3
Subalpine fireweed (*Epilobium howellii*)	CRPR 4.3
Starved daisy (*Erigeron miser*)	CRPR 1B.3
Donner Pass buckwheat (*Eriogonum umbellatum var. torreyanum*)	CRPR 1B.2
Slender cottongrass (*Eriophorum gracile*)	CRPR 4.3
Plumas ivesia (*Ivesia sericoleuca*)	CRPR 1B.2
Plumas alpine aster (*Oreostemma elatum)*	CRPR 1B.2
Center Basin rush (*Juncus hemiendytus var. abjectus*)	CRPR 4.3
Hutchison's lewisia (*Lewisia kelloggii ssp. Hutchisonii*)	CRPR 3.3
Long-petaled lewisia (*Lewisia longipetala*)	CRPR 1B.3
Quincy lupine (*Lupinus dalesiae)*	CRPR 4.2
Bugleweed (*Lycopus uniflorus*)	CRPR 4.3
Three-ranked hump moss (*Meesia triquetra*)	CRPR 4.2
Broad-nerved hump moss (*Meesia uliginosa*)	CRPR 2.2
Jones' muhly (*Muhlenbergia jonesii*)	CRPR 4.3
narrow-petaled rein orchid (*Piperia leptopetala*)	CRPR 4.3
Sierra starwort (*Pseudostellaria sierra*)	CRPR 4.2
Alder buckthorn (*Rhamnus alnifolia*)	CRPR 2.2
Western campion (*Silene occidentalis ssp. Occidentalis*)	CRPR 4.3
Obtuse starwort (*Stellaria obtuse*)	CRPR 4.3
Rayless mountain ragwort (*Packera indecora)*	CRPR 2B.2
felt-leaved violet (*Viola tomentosa*)	CRPR 4.2
Sticky pyrrocoma *(Pyrrocoma lucida (Haplopappus lucidus))*	CRPR 1B.2
Cusick's speedwell *(Veronica cusickii)*	CRPR 4.3

See Section IV, Biological Assessment for a detailed discussion of the species identified, and their potential use of the project area.

To comply with Fish and Game Code Section 3503.5, timber operations will be preceded by pre-operations review of the site by an RPF and/or a qualified wildlife biologist. ***Review of the site will be conducted within 14 days of the onset of operations. The review will be conducted by the RPF responsible for marking the timber to be fell and/or a qualified wildlife biologist. Trees targeted for removal within the harvest area will be reviewed during the survey period which may be in conjunction with the mandatory on the ground, pre-operations meeting with the LTO.***

During the life of the THP, the provisions to be taken for the protection of the species include:

Raptors

- *Prior to tree removal activities within the raptor nesting season (March 1 - September 1), a focused survey for raptor nests shall be conducted by a qualified biologist. If an active raptor nest is identified, appropriate mitigation measures shall be developed and implemented in consultation with the Department of Fish and Wildlife (CDF&W). If all timber operations occur between September 1st and January15th no raptor surveys will be required.*
- *In accordance with Forest Practices Rules, if an occupied nest of a listed bird (ESA, CESA, or Board of Forestry "Sensitive Species") is discovered during timber operations, the timber operator shall protect the nest tree, screening trees, perch trees, and replacement trees. Until any consultation required under Forest Practice Rules occurs. (1) Vegetation disturbing activities will be suspended within 1/4 mile of the nest. (2) All operations (per PRC 4527) will be suspended within a 500-foot radius buffer of the occupied nest. and (3) the Department of Fish and Wildlife (CDF&W) and Department of Forestry and Fire Protection will be immediately notified as a means to evaluate proposed protection measures and the plan shall be amended to describe any additional protection measures prior to operations in the affected area.*
- *If an inhabited nest is observed within or adjacent to the THP boundary further mitigation shall include: Should operations outside the buffer cause the nesting raptor to vocalize, get up from a brooding position, or fly off the nest, operations will be moved back from the nest far enough to stop the agitated behavior by the raptor. The RPF will advise the CDF&W prior to the end of the year in which the occupies nest was discovered of: a) the raptor species encountered, b) the size of any set back buffer employed, and c) the reproductive success or failure of the discovered nest.*
- *An alternative protection measure shall be to contact a wildlife biologist, qualified to consult on the detected non-listed species, to provide mitigations that will protect the activity center. An amendment that shall be considered a minor amendment to the timber harvest plan shall be filed reflecting such additional protection.*

Mammals

- *During timber operations, if a gray wolf, fisher, Sierra Nevada red fox, or Sierra Nevada mountain beaver are observed CAL FIRE and CDF&W shall be notified immediately. The critical period is March 1 through July 31, where reproduction and caring for young occurs and when the highest potential for disturbance exists. Prior to timber operations, the RPFs shall check the gray wolf website. Any significant changes shall be amended into the THP. During timber operations, if a den or a female with young is observed, operations shall cease within .25 mile. CAL FIRE and CDF&W shall be notified immediately as a means to evaluate proposed protection measures and the plan shall be amended to illustrate the den location and describe any additional protection measures prior to operations in the affected area.*

Amphibians

- *Prior to the start of timber operations, for that year of operations, a survey to detect presence of amphibian species will be conducted by a qualified Biologist. If the Sierra Nevada Yellow-Legged Frog (Rana sierrae), Foothill yellow-legged frog (Rana boylii) California Red-legged Frog (Rana draytonii), are observed, a buffer shall be established where all vegetation and ground disturbing activities within 25 feet of the observation and adjacent suitable stream/pond/lake habitat shall cease until the RPF consults with Cal Fire and the Department of Fish and Wildlife for appropriate protection measures.*

Plants

- *Prior to the start of timber operations, for that year of operations, a survey to detect presence of botanical species will be conducted by a qualified Biologist. If an occurrence of Special Status plant species is identified during the life of the THP, a 25' no operations buffer shall be flagged with Orange and White "Special Treatment" flagging around a sensitive plant population until site-specific and species-specific measures can be developed in consultation with the CDF&W and amended into the THP.*

No other sensitive biological issues of concern were noted that would place constraints on the implementation of this project. Based on information gathered during the scoping process combined with the past and future field visits, the contents of the proposed project, the Forest Practice Rules, and the magnitude of impacts and mitigation measures identified throughout this plan, the proposed project will not produce significant adverse impacts to non-listed or listed species and their associated habitat.

SECTION IV
Board of Forestry - Technical Rule Addendum No.2
CUMULATIVE IMPACTS ASSESSMENT

(1) **Do the assessment area(s) of resources that may be affected by the proposed project contain any past, present, or reasonably foreseeable, probable, future projects?**

Yes **XX** No _____

If the answer is yes, identify the project(s) and affected resource subject(s).

(2) Are there any continuing, significant adverse impacts from past land use activities that may add to the impacts of the proposed project?

Yes **XX** No _____

If the answer is yes, identify the activities, describe their location, impacts and affected resource subject(s).

303 (d) The Truckee River is listed as a 303(d) watercourse. The Truckee River lies downstream and outside of the Watershed Assessment Area. USEPA JUNE 28, 2007

The listed pollution/stressors are sedimentation and siltation. The causes are listed as: Watershed disturbance including ski resorts, silvicultural activities, urban development, reservoir construction and management; highly erosive sub-watersheds, Range Grazing-Riparian and/or Upland, Silviculture, Construction/Land Development, Highway/Road/Bridge Construction, Stream-bank Modification/Destabilization, Channel Erosion, Erosion/Siltation, Natural Sources, Recreational and Tourism Activities (non-boating), Snow skiing activities, Nonpoint Source.

The potential for increased run-off which could contribute sedimentation and siltation from the proposed project is considered negligible in comparison to the total run-off from the entire watershed. No further consideration is necessary.

(3) Will the proposed project, as presented, in combination with past, present, and reasonably foreseeable, probable, future projects identified in items (1) and (2) above, have a reasonable potential to cause or add to significant adverse cumulative impacts in any of the following resource subjects?

	Yes, after mitigation (a)	No after mitigation (b)	No reasonably potential Significant adverse impacts (c)
A. Watershed		XX	
B. Soil Productivity			XX
C. Biological		XX	
D. Recreation			XX
E. Visual			XX
F. Traffic			XX
G. Greenhouse Gas (GHG)			XX
H. Other – Wildfire Risk and Hazard		XX	
I. Other - Noise			XX

a) Yes, after mitigation means that potential significant adverse cumulative impacts are left after application of the forest practice rules and mitigation or alternatives proposed by the plan submitter.

b) No, after mitigation means that any potential for the proposed timber operations to cause or add to significant adverse cumulative impacts by itself or in conjunction with other projects has been reduced to insignificance or avoided by mitigation measures or alternatives proposed in the THP and application of the forest practice rules.

c) No reasonably potential significant adverse impacts mean that the operations proposed under the THP and applicable forest practice rules do not have a reasonable potential to join with the impacts of any other projects to cause, add to, or constitute significant adverse cumulative impacts.

(4) If column (a) is checked in (3) above described why the expected impacts cannot be feasibly mitigated or avoided and what mitigation measures or alternatives were considered to reach these determination impacts. If column (b) is checked in (3) above describe what mitigation measures have been selected which will substantially reduce or avoid reasonably potential significant cumulative impacts except for those mitigation measures or alternatives mandated by application of rules of the Board of Forestry.

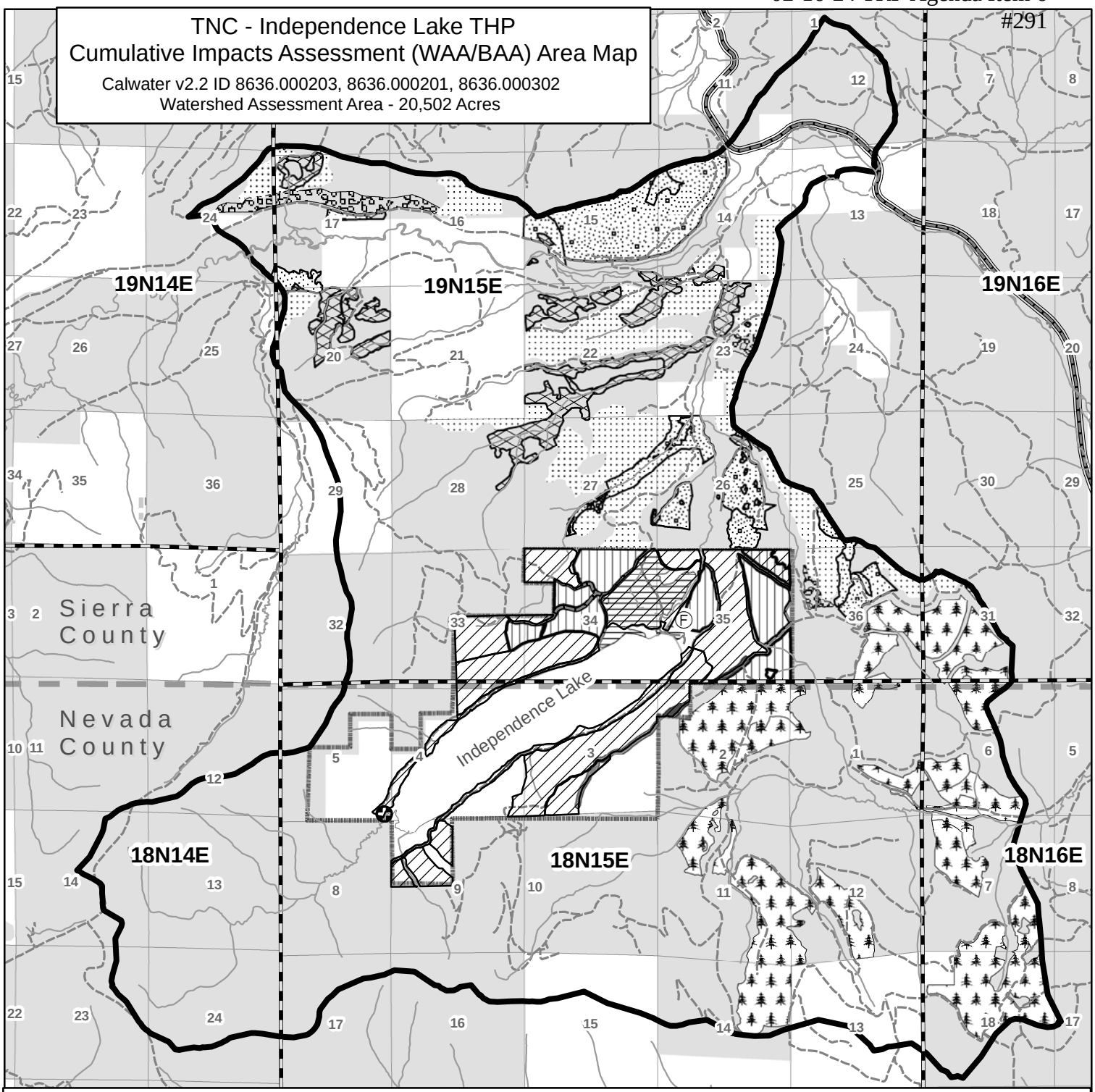
(5) Provide a brief description of the assessment area used for each resource subject.

(6) List and briefly describe the individuals, organizations, and records consulted in the assessment of cumulative impacts for each resource subject. Records of the information used in the assessment shall be provided to the Director upon request.

TNC - Independence Lake THP
Cumulative Impacts Assessment (WAA/BAA) Area Map

Calwater v2.2 ID 8636.000203, 8636.000201, 8636.000302
Watershed Assessment Area - 20,502 Acres

#291



Legend

- Watershed/Biological Assessment Area Boundary (WAA, BAA)
- Independence Lake Property Boundary
- County Boundary
- Township & Range
- USFS
- Watercourses
- Roads
- Highway 89

0 0.25 0.5 1 1.5 2
Miles

Project Areas - **Present & Future**

- Transition
- Liberty
- Sagehen
- Phoenix
- Outback
- Independence Lake Proposed THP Boundary 2020

Past

- Upper Independence Creek Cut-bank Restoration
- Ⓕ Independence Lake Spillway Fish Barrier
- THP 2-11-069-SIE - Completed
- Independence Lake 2009 Fuel Break
- Independence Lake 2009/2010 Biomass Thinning

BOARD OF FORESTRY TECHNICAL RULE ADDENDUM NO. 2
CUMULATIVE IMPACTS ASSESSMENT

Introduction

The purpose of this addendum is to guide the assessment of cumulative impacts as required in 14 CCR 898 and 1034 that may occur as a result of proposed timber operations. In the process of preparing this THP, the RPF has distinguished between on-site impacts that are mitigated by application of the Forest Practice Rules (FPR) and the interactions of proposed activities (which may not be significant when considered alone) with impacts of past and reasonably foreseeable future projects.

Information used in the assessment of cumulative impacts maybe supplemented during the THP review period, agencies participating in the plan review may provide input into the cumulative impacts assessment based on their area of expertise. Agencies should support their recommendations with documentation. The information gathered and used in the assessment of cumulative impacts for this THP are listed below under the heading, Identification of Information Sources.

Identification of Resource Areas

A combination of maps and written description for each of the resource assessment areas is provided for in this Section.

Identification of Information Sources

1. Consultation with Experts and Organizations

Department of Fish & Wildlife
California Natural Diversity Database
Wildlife & Habitat Data Analysis Branch
1807 13th Street, Suite 202
Sacramento, CA 95814

North Central Information Center
Department of Anthropology
California State University Sacramento
Sacramento, CA 95819-6106

Northeast Information Center
123 West 6th Street, Suite 100
Chico, CA 95928
530-898-5438

Department of Forestry & Fire Protection
THP Forest Practice Database
6105 Airport Road
Redding, CA 96002

Dr. Edward "Ted" Beedy
Beedy Environmental Consulting
12213 Half Moon Way,
Nevada City, CA 95959.
530 274 7232

County of Nevada
Community Development - Planning
950 Maidu Avenue, Suite 170
Nevada City, CA 95959

Catherine Schnurrenberger, Consulting
Botanist, C.S. Ecological Surveys and
Assessments, 11331 Star Pine Rd.
Truckee, CA 96161

Truckee Ranger District
Tahoe National Forest
10811 Stockrest Springs Rd
Truckee, CA 96161

Sierraville Ranger District
Tahoe National Forest
317 South Lincoln Street (P.O. Box 95)
Sierraville, CA 96126

Chris Fichtel
Independence Lake Project Manager
The Nature Conservancy
One E. First Street, #1007
Reno, NV 89501

Ed Smith
Ecoregional Ecologist
The Nature Conservancy
555 Capitol Mall, Suite 1290
Sacramento, CA 95814

Sierra County Planning Department
101 Courthouse Square
Downieville, CA 95936

2. Records Examined:

As provided in Section 898 of the rules, the RPF and the plan submitter have consulted with information sources that are reasonably available. The records consulted are listed below:

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Past and Future Activities: Past and future projects included in the cumulative impacts assessment shall be described as follows: A) Identify and briefly describe the location of past and reasonably foreseeable probable future projects within described resource assessment areas. B) Identify and give the location and description of any known, continuing significant environmental problems caused by past projects as defined in 14 CCR 895.1,

Past Projects means previously approved, on-going, or completed projects, which may add to or lessen impact(s) created by the THP under consideration. These generally include, but may not be limited to, projects completed within the last ten years.

Reasonably, Foreseeable Probable Future Projects means projects with activities that may add to or lessen impact(s) of the proposed THP including but not limited to:

1) if the project is a THP on land which is controlled by the THP submitter, the THP is currently expected to commence within but not limited to, 5 years or,
2) if the project is a THP on land which is not under the control of the THP submitter the THP has been submitted or on-the-ground work including THP preparation has materially commenced, or
3) if the project is not a THP, and a permit is required from a public agency, and the project is under environmental review by the public agency, or
4) if the project is one which is under taken by a public agency, the agency has made a public announcement of the intent to carry out the project.

Past and future projects included in the cumulative impact assessment shall be described as follows:

A. Identify and briefly describe the location of past and reasonably foreseeable probable future projects as defined in 14 CCR 895.1 within described resource assessment areas.

Letters were sent to the USFS Truckee & Sierraville Ranger District requesting information regarding past, present and future projects. In several meetings with USFS representatives the following information was provided on past, present and future timber harvesting/fuel reduction projects within the Watershed Assessment Area.

Liberty Forest Health Improvement Project – 2000 Sierraville Ranger District, Tahoe National Forest. The proposed Liberty project area is the northeast portion of the Tahoe National Forest on Sierraville Ranger District. The purpose is to protect habitat for all Threatened, Endangered and Sensitive species (spotted owls, furbearers and mountain yellow-legged frogs) by reducing the probability of stand-destroying wildfire in forested habitat by applying silvicultural prescriptions to treatment areas totaling 1799 acres. (Identified on CIA Map)

Phoenix Project - 2007/2008 Sierraville Ranger District, Tahoe National Forest – Fire hazard reduction and Aspen restoration on approximately 4,969 acres. The Phoenix Project area is located in Sierra and Nevada Counties, in the southwest portion of the Sierraville District, west of Highway 89, south and west of Sierraville. The treatment units are located west and south of Treasure Mountain, in the Dark Canyon area, the area just southwest of the Little Truckee Campground and dispersed throughout the "checkerboard" ownership in the vicinity of Jackson Meadow Reservoir, Milton Reservoir, Meadow Lake, the Bald Ridge Loop Road, the Pass Creek Loop Road, Moscove Meadow, Perazzo Meadow, and other areas both north and south of the Fibreboard Road #07. (Identified on CIA Map).

Outback Aspen Restoration Project - 2009 Sierraville Ranger District, Tahoe National Forest. The purpose of this project is to promote a proper growth environment that will restore the health and vigor of aspen stands in order to 1) promote aspen regeneration and expansion, and 2) manage for multiple age and cover classes. The project applies vegetation treatments to approximately 479 acres by remove encroaching and competing conifers within and adjacent to aspen stands to reverse the aspen stand decline trend and improve aspen vigor, improve riparian vegetative and hydrologic conditions. (Identified on CIA Map)

Perazzo Meadows Watershed Restoration and Grazing Allotment Management Project - 2009 Sierraville Ranger District, Tahoe National Forest. The purpose is to implement watershed restoration activities within the Little Truckee River watershed in and around Perazzo Meadows. Approximately 5 miles west of Highway 89 and south of Fibreboard Road, Perazzo Meadows consists of a series of wet meadow complexes fed by the Little Truckee River, Perazzo Canyon Creek and Cold Stream located along the east slope of the Sierra Nevada mountain range. (Not identified on CIA Map)

Sagehen Project – 2010 Pacific Southwest Research Station – Sagehen Experimental Forest, Tahoe National Forest – Truckee Ranger District. This project involves an extensive, yearlong collaborative effort to design an integrated, innovative approach for applying the most recent science to enhance marten habitat, restore forest stand ecological conditions, and manage fire and fuels on national forest lands within the Sagehen Experimental Forest on approximately 2,750 acres of treatment utilizing various methods. (Identified on CIA Map).

Independence Lake Spillway Fish Barrier – 2012 USDI- Bureau of Reclamation. Under DF&G Streambed Alteration Agreement 1600-2011-0139-R2, construction of a fish barrier on the spillway outlet of Independence Lake, as part of an overall strategy to protect and restore the native Lahontan cutthroat trout population (Oncorhynchus clarkii henshawi) of Independence Lake. Lahontan cutthroat trout (LCT) is federally listed as threatened under the Endangered Species Act. (Identified on CIA Map)

Upper Independence Creek Cut-bank Restoration – 2012 Sierraville Ranger District, Tahoe National Forest. The project aims to restore the degradation caused by the installation of the historic fish weir. The project proposes to remove the weir remnants and restore the eroding cut-bank. The project will result in reduced erosion, improved spawning habitat, and improved water quality. (Identified on CIA Map)

Transition Project - 2012 Sierraville Ranger District. Tahoe National Forest. The purpose of this project is to implement Defensible Fuel Profile Zone treatments. to treat concentrated fuels. improve meadow conditions with fuel wood removal. and to improve forest health with hand and mechanical thinning. prescribed under burning. and group selection treatments. (Identified on CIA Map)

During the past 10 years, private timber harvesting and fuel reduction project have occurred within the WAA. The following is a list of Public (USFS) and Private (Cal Fire) timber harvest plans, which have been filed or have occurred wholly or partially within the assessment area. Records checked include CDF Forest Practice Database, Northern Region Forest Practice GIS (FPGIS), Cal Fire Area Foresters' files and maps, and USFS documents.

Note: If there is a discrepancy in the total acres provided in the available information, the analyses will error on the side of caution by using the larger number of acres. The following is a disclaimer provided by the Cal Fire regarding the data.

Disclaimer: Timber harvesting histories generated by the California Department of Forestry and Fire Protection's Northern Region Forest Practice GIS (FPGIS) show information currently in the files of Cal Fire. This information is part of the public's domain. Because the status of timber harvesting plans (THPs) change –through operational activity and/or amendments to the original THP, and because geographic features may be reclassified or added into the data-sets over time, we recommend that you not redistribute this GIS data. If other people need this data, urge them to obtain the information directly from CDF to assure that the data is *current* and *accurate*. Further, it is recommended that you update your data through Cal Fire on a regular basis to obtain the most current and accurate version.

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of or arising from the use of data or maps.

Users should cite the Department of Forestry and Fire Protection as the original source of the data, but clearly denote cases where the original data have been updated, modified, or in any way altered from the original condition.

This data is not made available for sale or distribution to a third party. Users are encouraged to refer others to Cal Fire to acquire the data, in case updated data become available.

Public and Private timber harvesting/fuel reduction in the past 20 years for the Watershed Assessment Area – Calwater v2.2 ID 8636.000203-Independence Lake (4,967 Ac.), Calwater v2.2 ID 8636.000201-Lower Independence Lake (8,760 Ac.), and Calwater v2.2 ID 8636.000302-Upper Sagehen Creek (6,775 Ac.), totaling 20,502 Acres (See CIAA Map, Page 77)

The list includes the future Independence Lake THP

Harvest Document	Section	Township	Range	Silviculture	Acres	% WAA
2-10EX-551 SIE	34/35	19N	15E	Fuel break	51	.25
2-11-069-SIE	33/34/35	19N	15E	Alt. Sanitation/Salvage	432	2.11
					483	**2.36**
Liberty Project					1145	5.58
Phoenix Project					162	.79
Outback Project					479	2.34
Sagehen Project					3320	16.19
Transition Project					813	3.97
Independence Lake Fuel Break					15	.07
					5934	**28.94**
Total Past/Present					**6417**	**31.3**
Independence Lake THP (2020)					1250	6.1
Total Past/Present/Future					**7667**	**37.4**

An evaluation was made on the relative level of activity that may be associated with the watershed. Field evaluations included observations of watercourse conditions at existing public roadway crossings and overview observations as are available from public access points. No ongoing problems related to past harvests were found to be apparent in these observations with the exception of the low water crossing on County Road 350 as identified in the plan.

Over the past 10 years, timber harvesting and fuel reduction projects has affected a 37.4 percent of the watershed assessment area. In general, these impacts are temporary in nature when compared to urbanization and rural growth. Timberland site recovery is estimated using recovery curves. The base disturbance coefficient impact values which are the backbone to site recovery estimates are the result of approximating the watershed's ability to absorb land use activities without causing significant detrimental effects to the beneficial uses of water. For example, full site recovery from harvesting activities can occur within 9 to 15 years depending on the type of selected silviculture and harvesting practice. In comparison, urbanization and rural growth areas cannot recover assuming continued site occupancy.

A letter was sent to Nevada and Sierra County Planning Department requesting information regarding future projects. No response from county as of filing of this document.

Timber harvest in the project area began around 1917 with railroad logging. Generally, the largest conifers were harvested via a system of steam donkey skid trails and railroad grades, evidence of which is still visible in the project area today. Sheep grazing began at the same time as timber harvest. The institution of aggressive fire suppression policies in the mid-1900s has resulted in over-stocked forest stands, with an overabundance of shade-tolerant species such as white fir in the understory. Many current stands have a "fuel-ladder" configuration, and are now very susceptible to the spread of forest fires.

Portions of the Watershed Assessment Area (WAA) have been subject to high-severity fire in the past, such as the 1928 Independence Fire, and most notably the Donner Ridge Fire that occurred in the fall of 1960 which burned a total of approximately 44,000 acres under high fire intensities. The pine plantation along the ridge road in Section 3 is an example of the reforestation efforts.

There is substantial risk that a wildfire could start in the more populated areas located to the south of the WAA during a period of low fuel moistures and be driven into the Basin by winds from the south or southwest. Under such a scenario, the fire entering the WAA would likely be characterized by extreme fire behavior, with long flame lengths and high rates of spread. Such a fire would be expected to spread in a manner similar to the historic Donner Ridge Fire or other more recent large fires in the Truckee/Tahoe area. There is also the possibility of a fuel-driven wildfire from the south and southwest in

Budget Item Description	$/unit	Quantity	Quantity Type	TRF Funding	Other Funders	Match	Total Cost
Salaries and Wages							
None	X	X	Hours	0.00	0.00	0.00	0.00
Contractual							
Project Implementation	$3500/acre	61 acres	Contract	150,500.00	0.00	63,000.00	213,500.00
Total Direct Costs	$3500/acre	61 acres	Contract	150,500.00	0.00	63,000.00	213,500.00
Indirect Costs/Overhead (≤25% of budget)	NICRA @ 22%	LS	Indirect Cost Rate	33,110.00	0.00	0.00	33,110.00
Total Project Costs				183,610.00	0.00	63,000.00	246,610.00

TRF #292 River Justice: Pollution Reduction and Sustaining Water Quality

Truckee River Fund- Spring 2024

Indigenous Peoples Council on Biocolonialism

Autumn Harry
PO Box 411
Nixon, NV 89424

O: 775-857-9432

Autumn Harry

PO Box 76
Nixon, NV 89424

autumnharry24@gmail.com
O: 775-857-9432

Application Form

Truckee River Fund Grant Priorities

Truckee Meadows Water Authority (TMWA) recommends that the Truckee River Fund (TRF) Advisory Committee (the "Committee") give preference to well-supported, clearly drafted grant requests that consider substantial benefits to TMWA customers for projects and programs that mitigate substantial threats to water quality and the watershed, particularly those threats upstream or nearby water treatment and hydroelectric plant intakes.

- **Aquatic Invasive Species (AIS)**: Projects/Programs that support the prevention or control of aquatic invasive species in the mainstem Truckee River, Lake Tahoe, other tributaries and water bodies in the Truckee River system.
- **Watershed Improvements:** Projects that reduce erosion or sediment, suspended solids, or total dissolve solids (TDS) discharges, nutrients, industrial contaminants, or bacterial pollutants to the River. Projects or programs that are located within 303d (impaired waters) and total maximum daily load (TMDL) sections of the River should be considered, both in California and Nevada. Innovative techniques should be encouraged. The following link identifies impaired sections of the river and its tributaries: https://mywaterway.epa.gov/.
- **Local Stormwater Improvements**: Projects that demonstrably mitigate storm water run-off due to urbanization of the local watershed. Priority should be given to those improvement projects in close proximity to TMWA's water supply intakes and canals and which will improve the reliability and protect the quality of the community's municipal water supply.
- **Re-Forestation and Re-Vegetation Projects**: Projects to restore forest and upland areas damaged by fire and historical logging operations, and to improve watershed resiliency in drought situations. Projects/programs in this category should be given a high priority due to urbanization of the watershed and increased susceptibility of the urban and suburban watershed to wildfire.
- **Support to Rehabilitation of Local Tributary Creeks and Drainage Courses**: Projects to support water quality improvement in creeks and tributaries to the Truckee River.
- **Stewardship and Environmental Awareness**: Support to clean-up programs and the development and implementation of educational programs relative to water, water quality and watershed protection that do not fall clearly into the one of the above-mentioned categories.

Notes:

- **For proposals related to weed control/eradication, contact Lauren Renda at the Community Foundation of Northern Nevada for additional criteria at lrenda@nevadafund.org.**
- **For proposals in the Lake Tahoe Basin, the Truckee River Fund (TRF) typically only funds proposals related to Priority I and VI.**

Grantee Requirements

GRANTEE REQUIREMENTS

To be eligible for funding, grantees must adhere to the following requirements:

- Funds are to be used and/or disbursed exclusively for the charitable uses and purposes.

- The Fund shall be used exclusively for projects that protect and enhance water quality or water resources of the Truckee River, or its watershed.
- Grantees may include 501(c)(3) organizations and governmental entities. Any grants to governmental entities must be made exclusively for public benefit purposes.
- All grantees will be required to sign a grant agreement stipulating their agreement to all applicable terms, conditions, and reporting requirements.
- Organizations or entities sponsoring proposals are prohibited from ex parte communications with members of the Committee regarding such proposals while those proposals are pending before the Committee, and such communications may be grounds for rejecting a proposal.
- All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

TRUCKEE MEADOWS WATER AUTHORITY BOARD OF DIRECTOR'S DISCRETION

For each proposal submitted and recommended by the Committee the TMWA Board of Directors has absolute discretion to:

- Accept or reject any proposal;
- Accept a proposal on the condition that certain modifications be made;
- Assess proposals as they see fit, without in any way being obligated to select any proposal;
- Determine whether proposals satisfactorily meet the evaluation criteria set out in this RFP;
- Reject proposals with or without cause, whether based on the evaluation criteria set out above or otherwise.

PERFORMANCE GUIDELINES

To maintain eligibility to receive grant funds, each Charitable Beneficiary must comply at all times with the following requirements:

- Must be exempt from federal income taxation under Section 501(c)(3) of the Code;
- Shall use all Fund distributions toward projects that are appropriate and legal public expenditures;
- Must provide financial details and/or reports of their organizations upon request;
- Must submit quarterly reports.
- Must not use any Fund distributions for political contributions or political advocacy;
- Must either implement the projects, activities, and/or programs for which they received Fund distributions within six months of the date in which such distributions are received or by date(s) as agreed upon in the grant acceptance agreement, or must return all such distributions to the Community Foundation of Northern Nevada forthwith;
- Must provide the Community Foundation of Northern Nevada a report detailing the completion of their projects, activities, and/or programs; and
- Must sign an agreement regarding their compliance with the qualifications hereof.

Project Evaluation Criteria

EVALUATION CRITERIA

Applications are evaluated according to the following criteria and in order of priority. If the grant applicant does not meet the "Grantee Requirements", the application will not be considered.

1. RELEVANCE OF PROPOSAL TO THE TRF PROGRAM

- Address TRF grant priorities – Does the project address at least one of the TRF grant priorities, as described at the beginning of the RFP?
- Meet multiple objectives – Does the project meet multiple grant priorities?
- Public benefit of the project – Does the project help TMWA protect its sources of drinking water?
- Benefit to TMWA customers – Is there a direct benefit to TMWA customers?
- Project location – Is the project located upstream of one of TMWA's water treatment plants?

2. QUALITY OF PROJECT DESIGN

- Appropriateness of selected project methods – Do the proposed project strategies make sense to address the watershed and/or water quality concern(s) outlined by the applicant?
- Thoroughness of project design – Is the project design adequately detailed to ensure the desired outcome(s)?
- Sustainability of project – Will the benefits of the project continue after the grant funds are expended?
- Project longevity – If ongoing operation & maintenance (O&M) is required to maintain benefits, is it funded?
- Consideration of existing research – Does the project consider existing research, planning efforts, or assessments related to the Truckee River watershed?

3. MEASURABILITY OF PROJECT SUCCESS

- Identification of project benchmarks or milestones – Has the applicant described the steps necessary to complete the project?
- Demonstrated ability to measure the results of the project – Does the project have adequate measurable outcomes to evaluate project success?
- Benefits expected from a successful project – Are there clear goals that will be obtained on project completion?
- Readiness to begin project – Is the grant applicant ready to undertake and complete the project?

4. EFFECTIVENESS OF ORGANIZATION

- Qualifications of applicant for the proposed project – Does the applicant have adequate experience and credentials to perform the work described in the application?
- Collaborative efforts – Are there partner organizations supporting or benefiting from the project?
- Demonstrated ability of applicant to manage and complete the project – Has the applicant successfully completed projects similar to the one proposed? If previously funded by TRF, has the applicant met performance requirements and completed projects successfully?

5. ADEQUACY OF PROPOSED BUDGET

- Availability and status of matching funds – Does the project provide a minimum of 25 percent match in cash and/or in-kind services? If the project is downstream of the USGS Vista gage, is the 25 percent match requirement met using cash match?
- Total project cost relative to benefits – Is the project cost reasonable given the expected project outcome(s)?
- Appropriateness of budget – Are the costs presented in the budget adequately detailed and do they seem reasonable? Is the project under the 25 percent indirect/overhead expense limit?

Organization Information

Organization Name*
Indigenous Peoples Council on Biocolonialism

Organization Type*
501(c)(3) Nonprofit

EIN
If the organization is a 501c3, please include the EIN#.

88-0425570

Director of Organization*
Debra Harry

Project Contact Name*
Autumn Harry

Project Contact Postion/Title*
Executive Director

Project Contact Email*
autumnharry24@gmail.com

Project Contact Phone Number*
775-857-9432

Organization Mission*
Healing Waters Insitute (HWI) is an Indigenous-led organization, sponsored by Indigenous Peoples Council on Biocolonialism (IPCB).

Our mission is to engage with Indigenous communities and focus on the continued Nation building of water and land protection. HWI will focus on reaffirming connections to water for communities in Pyramid Lake and Reno/Sparks through education, mutual aid projects, and helping with access to activities on the land and water. Growing from this on-the-ground-engagement, we will collectively advocate on local policy issues that relate to preserving and enhancing water throughout the Truckee River system and throughout the Great Basin.

Project Information

Project Title*
Name of Project.

TRF #292 River Justice: Pollution Reduction and Sustaining Water Quality

Amount Requested*
$97,220.00

Project Start Date*
03/01/2024

Project End Date*
02/28/2025

This funding will be used to:*
Complete this sentence with a max of 2 sentences.

This funding will be used to support Indigenous-led water protection efforts focused on removing solid waste from the Truckee River and developing educational resources to further protect downstream communities and fish species.

This project is on:*
Check all that apply

Public land

Are government permits or decision documents needed for the project?*
No

If so, are those permits and decision documents already secured?
If permits and decision documents are needed but not yet secured, in #4 of the Narrative Requirements provide a list of permits and documents needed and a schedule for securing them.

Previous Funding from Truckee River Fund

Has your organization received other grants from the Truckee River Fund?*
Yes

If yes, please include the following information for all previously funded projects:
- *Date awarded*
- *Project # and Title*
- *Amount of award*

Please attach additional pages as needed to list ALL previously funded projects.

Truckee River Fund (2022-2023)
TRF #275
$95,718

Description of Project Under Consideration

Indicate the description that best fits the project you are proposing*
Mark no more than three categories.

A. Projects that improve bank or channel stabilization and decrease erosion.

B. Structural controls or Low Impact Development (LID) projects on tributaries and drainages to the Truckee River where data supports evidence of pollution and/or sediments entering the Truckee River.

C. Projects that remove pollution from the Truckee River.

D. Projects that remove or control invasive aquatic species or terrestrial invasive plant species that are adverse to water supply.

E. Other projects that meet the evaluation criteria.

C.)
E.)

Narrative Requirements

1.) Specific project goals and measurable outcomes and how you will measure and report them.*

All projects are required to have measurable outcomes.

For the 2024 fiscal year, our focus for the Healing Waters Institute (HWI) is to continue River Justice through promoting the health of the Truckee River. The proposal includes the submission of the following four projects supported by Truckee River Fund (TRF):

1) Continue to recruit and maintain watershed partnerships to improve commitments and to be in solidarity with our Indigenous-led River Justice program.
2) Produce a TRF-funded Water Pollution and Solid Waste Reduction documentary with a narrative developed by a contracted journalist to promote the successful work carried out by the Agency and HWI. Disseminate these stories with the public audience and to all of the partners who have been recruited in the second year of this project.
3) We aim to complete eight (8) cleanups with volunteers and community partners. These partners may be non-profit organizations, Tribal, Federal, State, County and local municipalities. HWI aims to partner with groups who will share work and the success in reducing solid waste accumulations within the riparian corridor.
4) We commit to scheduling quarterly meetings to work with partners to reduce solid, municipal, industrial and toxic waste that could further impact water quality, endangered Cui-ui (Kooyooe), and the threatened Lahontan cutthroat trout (Agi).
o River Justice would help build and develop a series of stakeholder meetings to understand Keystone species like the Lahontan cutthroat trout and Cui-ui. These species are important to the Sierra Nevada and Great Basin ecosystems. It is understood that Keystone species could cause drastic impacts to other species if their populations change.
o We suggest working to develop successful partnerships with Washoe County, City of Reno/Sparks and the Tahoe Reno Industrial Park. This would assist Truckee Meadows Water Authority to take the lead of developing positive solutions in reducing water pollution and solid waste management within the river corridor. The fundamental goal in building these relationships is to minimize environmental harm to downstream communities.

2.) Describe the project location.*

Include site map and aerial photos if applicable/possible as an attachment.

This grant supports stewardship and assists partnerships from Lake Tahoe to the terminus of Pyramid Lake. The majority of our work will be within the Cities of Reno and Sparks, the Lower Truckee River, and the Pyramid Lake Paiute Reservation.

3.) Project Description*

Healing Waters Institute (HWI) is submitting this grant in pursuit of the second year of a successful River Justice program. Within the past year, HWI has organized four large-scale River Justice clean-ups, hosted a drone training, hired two interns to assists with goals, strengthened organizational partnerships, and engaged local community members in water protection efforts. Indigenous Peoples of the Pyramid Lake Paiute Tribe (PLPT) are leading river protection efforts, because the river cannot speak for itself. This is known as River Justice. Throughout settler history, we understand anthropogenic and extractive impacts have upset the freshwater and pristine condition of surface waters. Municipal, industrial, toxic, chemical, solid, and increased nutrients enter the Truckee River from the Cities of Reno/Sparks, Interstate 80, and other upstream communities. Much of this pollution flows downstream to the Pyramid Lake Paiute Reservation and lower Truckee River, which threatens the Keystone species such as the federally endangered Cui-ui (Chasmistes cujus), and threatened Lahontan cutthroat trout (Oncorhynchus clarkii henshawi). Keystone species are defined as species that define a region and bring specialized needs to this group of fish. Indigenous Peoples including the Reno-Sparks Indian Colony and the Pyramid Lake Paiute Tribe continue to protect their cultural and traditional connections to land and water. Indigenous Peoples advocate for Environmental Justice to prevent their homelands from contamination, extraction, and exploitation.

Every day, Native people connect and continue to protect water. Their everyday struggle to maintain traditional, cultural, and spiritual connections to land, air, and water is being threatened. This grant will support the above projects in order to achieve the long-term health of the waters, wildlife, and communities of the lower Truckee River. Further, it will promote the necessary work for the Truckee Meadows Water Authority and Community Foundations to find solutions to the problems. This project is positive and commits to being a true champion in Environmental Protection and working toward strategies with Indigenous Peoples.

Project Tracking and Monitoring River Health

Surveying and use of drones is a needed tool to monitor the progress of riparian corridor health. In our first grant year, we initiated drone training to increase the capacity and support the skills of Tribal members, volunteers and partners. The DJI Mavic drone will be flown over the Truckee River to monitor river health and project tracking for Truckee River Fund grant. We plan to schedule two trainings to assist surveying and monitoring River Justice cleanups.

Our data and survey methods are specifically designed to conform to the Truckee River Dashboard being developed by One Truckee River. We are committed to work as partners to deliver data more efficiently through the submittal of data through google forms. Trash removed from the river and added to the solid waste database will help track the dynamics of solid waste trends.

River Justice must be an ongoing program and is committed to engage more partners each year. We value that HWI will bring attention to aquatic invasive weeds, noxious weeds, erosion, sediment discharges, and restoration, revegetation, and other stewardship needs along the lower Truckee River, all of which will help the PLPT and other stakeholders identify and plan for future work to improve river health. HWI continues to collaborate with mutual aid programs to decrease food waste, use reusable/compostable dinnerware, and are steering partners to plan their own independent cleanups. This enables us to all share the costs and labor of Solid Waste reduction. We are solution-oriented and develop a focus to meet with potential and loyal partners frequently. Mutual aid groups are effectively strategizing efforts to reduce litter and solid waste within the Truckee Meadows.

Site Clean Ups
During the spring and fall of 2024, a reconnaissance team will identify four clean-up sites along the Truckee River and four sites on the shorelines of Pyramid Lake. This will involve coordination with Truckee Meadows Water Reclamation Facility (TMWRF), Washoe County, Cities of Reno/Sparks, and River Justice

partners/volunteers to further plan for the success of waste removal. We have been in coordination with Washoe County to acquire 30-yard dumpsters to be utilized during our clean-ups. Our focus is to continue data collection keep track of the number of volunteers, the waste removed (cubic yards), cost of supplies, disposal fees, transportation costs, site location, tracking in-kind, etc. This data will be collected for every clean-up and stewardship event.

Pollution Reduction Short Documentary
Education is crucial in work to protect the river, so it is beneficial for all partners and stakeholders to support a short documentary on water and solid waste reduction. As TRF and HWI work together, we can share the successes of our work by using photos, interviews, drone footage, and media to help develop TRF's priorities on improving riparian health through River Justice.

To help all stakeholders better understand the impacts of our collective failure to control litter and pollution upstream, HWI will coordinate with Pyramid Lake Paiute Tribal Council, the PLPT Interdisciplinary Team, and other stakeholders to provide a voice on their values and impacts that should be addressed. The process of the short documentary will begin with the vision of TRF, PLPT, volunteers, and partners. The documentary will employ a very fair perspective on sharing the successes of River Justice and pollution reduction support and advocacy. The river is regaining its beauty and this documentary will be available to the public and partnership organizations. It will also include the initial meeting with videographers and journalist who will capture the ideas, visions, and documentary focus. Our intended audience is all people living within the Truckee River Watershed and contribute to the TRF, Indigenous land defenders, community organizers, elected officials, stakeholders, and all people dedicated to the protection of water resources.

This grant includes support for both principals to attend one environmental stewardship conference and one environmental justice conference to learn best practices to incorporate into HWI's mission. This grant will support HWI's goal to build an Indigenous-led stewardship program to address the needs of the lower Truckee River, and to foster stronger relationships and coordination between the PLPT and other stakeholders managing the river. Our commitment is to continue to educate all those who drink, bathe, recreate, work, eat, and pollute upstream, so we can all work together to heal and sustain a healthy Truckee River.

4.) Grant priorities*

Explain how the proposed project advances the TRF's specific grant priorities.

Our monitoring program will help identify challenges such as:
• Continue to reduce waste pollution and increase water quality goals for the river.

• Continue to recruit partners to provide stewardship and adding their organizational commitments to the watershed.

• Produce a Pollution Reduction documentary for the public, Indigenous communities, TMWA customers and communities within the Truckee River Watershed which educates the success of River Justice

5.) Permitting*

Provide a permitting schedule for your project along with your plan for getting the required permits and decision documents. Be sure to include the cost of permitting/decision documents as a line item in your budget.

No permits will be required for any work supported by this grant.

6.) Future Land Use*

List any known or foreseeable zoning, land use, or development plans that may affect your proposed project.

This grant will not be affected by any future changes in land use, zoning, or jurisdiction

7.) If future phases of the project will be needed, identify anticipated sources of funding.*

Until upstream communities stop polluting the Truckee River and learn to respect its life-giving waters, habitats, and downstream communities, this program will need to continue. Future funding will be necessary, which is why HWI is pursuing formal nonprofit status. This grant will help HWI build an Indigenous-led program and culture of reciprocity and stewardship in the Truckee River watershed by strengthening and deploying the leadership, wisdom, and traditional knowledge of the Northern Paiute People of Pyramid Lake. It will allow the Tribe to guide HWI's initiatives and work.

HWI is currently in the process of formalizing its 501(c)(3) status. This will allow HWI to receive future funding from the federal government, the State of Nevada, local municipalities, charitable foundations, and individual donors. Our work is just beginning.

8.) Identify the principals involved in leading or coordinating the project or activity.*

The founding members of HWI and principals responsible for fulfilling this grant are Autumn and Beverly Harry. The list of Board of Directors and Board Chair are Jolie Varela (Numu/Yokuts), Deb Harry (Numu), Mary Gibson (Newe), Vernon Rogers (Numu) and Patty Basye (Numu).

HWI is an Indigenous-led organization based on the Pyramid Lake Paiute Reservation. We plan to obtain nonprofit 501(c)(3) status by Fall 2024. Until that time, HWI is submitting this application under the fiscal sponsorship of the Indigenous Peoples Council on Biocolonialism (EIN: 88-0425570).

9.) Number of staff positions involved in project.*

Identify how many staff will be full-time and how many will be part-time.
"Fulltime" means 100% of their staff position will be dedicated to this project; "part-time" means only a portion of their staff position will be dedicated to this project.

This grant supports 2 principal staff positions at 0.40 FTE each at $37, 440 and one Volunteer coordinator/data manager funded in a contract for $4,000 and to contract $1,000 for a Journalist to write the documentary narrative with TRF and HWI.

10.) Number of volunteers involved in project and an estimated number of volunteer hours.*

We conservatively estimate we will recruit 450 volunteers to our river clean ups; ~350 of whom will come from Reno/Sparks; ~ 100 will come from Indigenous communities.

11.) Timeline of Project*

List key dates and include project milestones. Note: Be realistic in your estimate of dates and milestones. List any factors that may cause a delay in implementing and/or completing the project.

***Note: Funding will not be provided for work performed prior to grant approval.*

The grant period will be March 1, 2024 to February 28, 2025

Complete 4 Clean-ups before November 2024
Present- Fall 2024: Filming and Interview
Host one drone training in Fall 2024
November-January: Video Editing
February 2025: Finalize Documentary
Complete 4 Clean-ups before March 2025.
Host one drone training in Spring 2025

12.) What factors will indicate a successful project?*

HWI has a track record of producing amazing results with recruiting partners and stakeholders, completing grant deliverables and submitting on-time reports. HWI will share a final grant report to Truckee River Fund, including metrics, link to the completed database, and TRF water pollution reduction short documentary, River Justice before/after photos and drone footage. We will also share with you all earned and social media coverage.

13.) Collaboration*

List partnerships or collaborations with other entities in relation to your proposal, if any. Grantees are encouraged to seek other funds prior to requesting money from the Truckee River Fund. Please explain what other funding opportunities were sought and if any other funds have been awarded.

In submitting this grant, HWI plans to join the many organizations and agencies already working together to steward the Truckee River, including Pyramid Lake Paiute Tribe, Reno Sparks Indian Colony, Washoe County, City of Reno, City of Sparks, Storey County, Truckee Meadows Water Authority, Sierra Pacific Power Company, Nevada Energy, US Fish & Wildlife Service, US EPA Region 9, Nevada Department of Wildlife, University of Nevada Reno, Tahoe Regional Planning Agency, Tahoe Research Environmental Program (UCDavis), Waste Management, Bureau of Land Management, One Truckee River, Desert Research Institute, Men of Color Action, Pyramid Lake High School, Big Water Fishing and others.

Grant Match

All applicants must provide **a match of at least 25 percent** for dollars requested. The match may be with funding and/or in-kind services.

For larger grant requests, priority will be given to projects that significantly leverage the grant with funding from other sources.

For grant requests for projects downstream of the Vista USGS gage, the 25 percent match requirement must be met using **cash match**.

Total grant match to be provided.*

$24,305.00

Cash

$17,305.00

For the cash portion, is the funding already being held by the applicant for this project?

In-kind

***Note: Provide an itemized breakdown of volunteer match in your budget with rationale.*

$7,000.00

Description of matching funds/in- kind donations.*

The majority of in-kind donations will stem from volunteer hours and miles driven for organized events.

Attachments

Nonprofits must submit:

- Last audited financial statements if your organization has been audited
- List of Board of Directors
- Copy of agency's IRS 501(c)(3) Tax Determination Letter
- Copy of the agency's most recent IRS Form 990

****Please submit as one PDF document**

IPCB Documents.pdf

Governmental entities must submit:

- Departmental budget in lieu of audited financial statements

Project Budget*

Provide detail on each line-item expenditures and show which funds are committed and which have been requested to be paid for by the Truckee River Fund grant, and which will be paid for with in-kind services. Other sources of funding should be provided. Explain status of other funding if not in hand. If project is to be implemented in phases, please separate budget into each phase. ***Please contact Lauren Renda at lrenda@nevadafund.org for a sample budget template.***

*****Notes:***

- *Indirect/overhead expenses cannot exceed 25 percent; TRF may fund indirect/overhead up to 25% based on availability of funds.*
- *Applicants should be prepared to provide reduced budgets during the review of applications by the TRF Advisory Committee when funds are limited.*
- *Grants from the Truckee River Fund are paid on a reimbursable basis for actual expenditures only. Craft your budget in such a way that requests for reimbursement correspond to the original budget.*

2024TRF_HWI.pdf

Item	Details	Cost/Value
2 Staff positions	0.30 FTE each	$30/hour
Volunteer Coordinator/ Data Manager Contract	Contract	$15/hour
TRF Pollution Reduction Narrative Development	Contract	$1,000
Drones Training with Partners	2	$500
Dumpsters	2 per clean up (6)	$500 x 2
Snacks for volunteers	$100 per event	$1,000
Gloves, trash bags, tools, SWAG	Misc.	
Meeting expenses	Rooms, AV, food, etc.	$850
Short TRF Pollution Reduction Documentary	Media, AV, Sound, Supplies	$8,000
Used HD River Justice Truck purchase	Repairs, tow pkg, trailer insurance,	$15,000
Staff/intern miles reimbursement		$0.655/mile
Principal Conference Travel		$1200 each per conference
IPCB Admin fee (10%)		
Total Request		
Match		
Volunteer time and miles		
Match percentage:		

Hours/miles	Total	
1248	$37,440	$37,440
250 hours	$3,750	$3,750
	$1,000	$1,000
	$1,000	$1,000
	$6,000	$6,000
	$1,000	$1,000
n/a	$8,000	$8,000
	$3,400	$3,400
	$8,000	$8,000
	$15,000	$15,000
1200 miles	$1,392	$1,392
	$2,400	$2,400
	$8,838	$88,382
	$97,220	
	$24,305	
	25.00%	

COMMUNITY FOUNDATION of Northern Nevada

TRUCKEE RIVER FUND GRANTEE EVALUATION

Prepared by:	**Bill Bradley**	**Date: 2/5/2024**
Project Title:	**TRF #259 Donner Creek Confluence and Boca Unit Restoration**	
Grantee:	**Truckee River Watershed Council**	

1. Grantee used the funding for activities specified in the grant proposal.

☐ Completed and exceeded activities specified in proposal
x☐ Completed activities specified in proposal
☐ Partially completed activities specified in proposal

NOTES:

2. Grantee deemed their project a success.

☐ Exceeded expectations
x☐ Met expectations
☐ Met some but not all expectations

NOTES:

3. Grantee met their stated goals.

☐ Met and exceeded stated goals
x☐ Met stated goals
☐ Met some but not all stated goals

NOTES: Although these were small projects in size, their successful completion, although delayed, was successful in reducing eroded and compressed areas adjacent to the river. Decompression, planting and controlled access to the improved areas were accomplished.

A side benefit was the involvement of many volunteers assisting in the project. The town of Truckee has assumed ongoing maintenance going forward.

COMMUNITY FOUNDATION of Northern Nevada

TRUCKEE RIVER FUND GRANTEE EVALUATION

Prepared by:	**Jim Smitherman**	**Date: February 8, 2024**
Project Title:	**#265 Great Community Cleanup, Truckee River Cleanup, Adopt-A-River, Adult and Community Education Program**	
Grantee:	**Keep Truckee Meadows Beautiful**	

1. Grantee used the funding for activities specified in the grant proposal.

☐ Completed and exceeded activities specified in proposal
☒ Completed activities specified in proposal
☐ Partially completed activities specified in proposal

NOTES: **Proposed budget, expenditures and reimbursement request figures are documented in the final report.**

2. Grantee deemed their project a success.

☒ Exceeded expectations
☐ Met expectations
☐ Met some but not all expectations

NOTES:

3. Grantee met their stated goals.

☒ Met and exceeded stated goals
☐ Met stated goals
☐ Met some but not all stated goals

NOTES: **KTMB met and exceeded stated goals for all elements of the project, which include:**

Great Community Cleanup,
Truckee River Cleanup,
Adopt-A-River Adult and Community Education Program.

Documentation is provided in quarterly and final reports. Pertinent excerpts appear below:

The Truckee River Cleanup, September 16, 2023

- Engage a minimum of 600 volunteers to participate in a river clean-up, storm drain stenciling, and weed removal;

A total of 693 volunteers participated in the event

- Remove 15-20 tons of trash, green waste, and invasive weeds from the Truckee River corridor and adjacent watershed at cleanup locations from Verdi to Lockwood;

A total of 25.15 tons off trash, green waste, and invasive weeds were removed

- Involve a minimum of 100 youth volunteers through new and existing youth program partnerships;

105 youth volunteered for the Truckee River Cleanup 2023

- Work with park and natural area staff to identify and wrap trees as needed along the river corridor;

KTMB coordinated with Washoe County, City of Reno, City of Sparks, Reno-Sparks Indian Colony, Pyramid Lake Paiute Tribe, and the Nevada Department of Wildlife. None of these partners requested tree wrapping for this year's project.

- Provide invasive weed, recycling, and litter-reduction education to volunteers at Truckee River Cleanup sites and the post-cleanup Volunteer Picnic to educate participants on being "Zero Waste." The event should be as close to "Zero Waste" as possible, with a picnic and zero waste efforts still in line with current public health and safety guidelines in place at the time of the event;

Every TRC project site included an educational component about the work being completed. This promoted participants' understanding of the purpose and impact of the work they completed, thus fostering the community's ecological literacy and environmental stewardship. Further education was provided at the TRC volunteer appreciation picnic held immediately following the cleanup. KTMB implemented zero waste practices at the picnic, building upon the knowledge and experience KTMB staff have gained over the years.

- Maximize resources and community awareness efforts by stenciling a minimum of 100 storm drains in conjunction with the City of Reno (as all drains flow to the river!);

KTMB volunteers worked with the City of Reno during this year's TRC event and stenciled 325 storm drains

- Survey event participants and compile analyzed results to determine the success and impact of the event;

A post-event survey has been sent to all participants and partners to gauge the success and impact of the event. These results will be utilized by KTMB to improve the success and impact of future large-scale cleanup events

- Host 20 "on the river" volunteers including kayakers, fly-fishers, and WET team Emergency Response personnel to remove debris from within the river;

A partnership with the Reno Fly Shop and the Reno WET team saw 28 on the river volunteers removing debris directly from the Truckee River.

- Spread Christmas tree mulch for soil erosion projects and to inhibit weed growth.

The event saw mulch spread at Crystal Peak and Rock Park.

- Remove graffiti as needed.

Idlewild Park saw the removal of 30 graffiti tags

The Great Community Cleanup, April 29, 2023

- Engage a minimum of 700 volunteers to participate in litter clean up and weed removal efforts at the event;A total of 806 volunteers participated in the Great Community Cleanup on April 29, 2023.
- Of those 700 volunteers, recruit and coordinate a minimum of 125 volunteers to pull invasive weeds at weed sites;
- A total of 13 sites for this event featured weed removal. A total of 402 volunteers were present at these locations.
- Remove 15-20 tons of trash, invasive weeds, and green waste from the Truckee River watershed;
- 60.675 combined tons of trash, invasive weeds, and green waste were removed from the Truckee River Watershed during the event.
- Provide invasive weed, recycling and litter-reduction education to volunteers at Great Community Cleanup sites and the post-cleanup Volunteer Picnic to educate participants on being "Zero Waste." The event should be as close to "Zero Waste" as possible, with a picnic and zero waste efforts still in line with current public health and safety guidelines in place at the time of the event;
- Invasive weed, recycling, and litter-reduction education was provided during the apprecation picnic for the Great community cleanup.
- Participants at weed sites were educated about identification of invasive weeds.
- Involve a minimum of 100 youth volunteers through new and existing youth program partnerships.
- Volunteer sign in forms reflect 45 youth volunteers participating in this event.
- A total of 45 youth volunteers participated in the Great Community Cleanup. However, a new registration process was used this year and we believe the actual number of youth volunteers was higher than reflected on volunteer registrations/sign in sheets.
- Survey volunteers participating in weed-related projects and analyze results to determine the success and impact of the event:
- Volunteers participating in weed-related projects learned about the identification of invasive weeds.
- Work with partners to identify and target a minimum of six invasive weed "hot spots" along Truckee River tributaries for weed removal and native plant restoration;
- A total of 14 sites for the Great Community Cleanup featured weed removal projects.Support accurate mapping of invasive weed zones as tracked by the Washoe Storey Cooperative Weed Management Authority (WSCWMA);
- Staff attempted outreach to the WSCWMA in advance of this event. Officials with Washoe County could not provide KTMB with current WSCWMA contacts.
- Enhance event marketing and outreach efforts with Adopt-A-River groups to increase their participation in the 2022 Great Community Cleanup;

Adopt-A-River 2023

- In response to the changing conditions of the Truckee River associated with our growing community, KTMB will work with municipal partners to update KTMB's annual Litter Index Survey and dedicate a section completely to the Truckee River corridor. Survey results will help KTMB staff identify areas that need adoption;

The final route of the annual Litter Survey was conducted on July 31, 2023. The river corridor route saw a litter core of 2.6 - a slight increase from previous years.

- The Adopt-A-River program will also include a Litter Survey before each cleanup. Areas are rated based on a scale of 1-4: 1, meaning "virtually no litter"; and 4, indicating "major illegal dump site". These surveys will show the impact of the Adopt-A-River program;

Each cleanup KTMB hosts includes a survey of litter in the area. Scores are then used to create monthly heat maps which continually inform Beautification and Cleanup projects and location.s

Adopt-A-River program;

- Recruit and retain adopters and volunteers to be stewards of the river corridor and watershed areas;

KTMB's Great Community Cleanup and Truckee River Cleanup engaged multiple Adopt-A-Spot and Neighborhood Cleanup groups. KTMB's Adopt-A-Spot Coordinator ensures that adoption groups steward the Truckee River corridor and greater watershed. One commitment KTMB Adopters must agree to is participation in at least one annual KTMB community event such as Great Community Cleanup or Truckee River Cleanup.

- Conduct a minimum of 15 river-specific cleanups through the Adopt-A-Spot Program;

From October 1st to December 31st, 2023, KTMB conducted 9 cleanups along the river

- Engage 150 volunteers in river-related cleanup efforts;

From October 1st to December 31st, KTMB engaged 268 volunteers along the river.

- Remove 5 tons of invasive weeds and trash from the Truckee River corridor.

From October 1st to December 31st, KTMB removed 1.84 tons or 3,680 lbs of trash and invasive weeds along the river.

COMMUNITY FOUNDATION of Northern Nevada

TRUCKEE RIVER FUND GRANTEE EVALUATION

Prepared by:	**Brian Bonnenfant**	**Date: 2/8/24**
Project Title:	**TRF #276 Mount Rose Noxious Weed Monitoring, Treatment, and Re-seeding 2023**	
Grantee:	**Friends of Nevada Wilderness**	

1. Grantee used the funding for activities specified in the grant proposal.

☒ Completed and exceeded activities specified in proposal
☐ Completed activities specified in proposal
☐ Partially completed activities specified in proposal

NOTES: **All funding was successfully applied to the project that exceeded their goals and activities.**

2. Grantee deemed their project a success.

☒ Exceeded expectations
☐ Met expectations
☐ Met some but not all expectations

NOTES: **Their consistently great collaboration provided an opportunity to conduct an additional weed pulling event after Patagonia reached out with interest in additional assistance. Friends of NV Wilderness success with their weed removal program has been documented into a short film.**

3. Grantee met their stated goals.

☒ Met and exceeded stated goals
☐ Met stated goals
☐ Met some but not all stated goals

NOTES: **The goal was 6 rounds of weed removals, but a 7th was accomplished that netted an additional 6,455 thistles. The goal was to remove 15,000 invasive musk thistles, but they removed 31,269.**

COMMUNITY FOUNDATION of Northern Nevada

TRUCKEE RIVER FUND GRANTEE EVALUATION

Prepared by:	**Jim Smitherman**	**Date: Feb. 1, 2024**
Project Title:	**#280 Watershed Education Initiative (WEI)**	
Grantee:	**Sierra Nevada Journeys**	

1. Grantee used the funding for activities specified in the grant proposal.

☒ Completed and exceeded activities specified in proposal
☐ Completed activities specified in proposal
☐ Partially completed activities specified in proposal

NOTES: **Reimbursement report mirrors proposed budget exactly.**

2. Grantee deemed their project a success.

☒ Exceeded expectations
☐ Met expectations
☐ Met some but not all expectations

NOTES:

3. Grantee met their stated goals.

☒ Met and exceeded stated goals
☐ Met stated goals
☐ Met some but not all stated goals

NOTES:
GOALS:
- Deliver WEI to 700 K-8th grade students within the Truckee River Watershed - All students receive first-hand experience with the local watershed through a field-study on the Truckee River or one of its tributaries, or, in the case of a distance learning model, a virtual field trip or case study of the Truckee River. - Provide 26 teachers with WEI extension lessons
- 100% of students participating in "Hands in the River" will be able to draw and describe the Truckee River Watershed - 100% of students participating in "Hands in the River" curriculum will complete water quality testing at/on the Truckee River to assess the health of their local watershed
- 90% of students participating in "Hands in the River" will be able to identify the function of storm drains and name three ways they can help reduce the amount of pollution entering the storm drain. - 80% of students participating in "Hands in the River" will feel comfortable in nature following their field study. - 95% of teachers will report that the program is helping to build critical thinking skills among their students.

GOALS EXCEEDED:

Goal 1: Deliver WEI to 700 K-8th grade students within the Truckee River Watershed. All students receive first-hand experience with the local watershed through a field-study on the Truckee River or one of its tributaries.

Outcome 1: In Nevada during the fall of 2023, 977 students attended WEI programs through Classrooms Unleashed. Funding from TRF directly supported 700 and allowed them to access our WEI units.
- 100% of students who participated in a field-study gained experience with their local watershed.
- 100% of students who participated in "Hands in the River" draw, describe and discuss the Truckee River Watershed
- 100% of students who participated in "Hands in the River" use knowledge of storm drains to describe ho individuals and communities can protect watersheds and reduce human impact on them.
- 100% of students who participated in "Hands in the River" complete a Truckee River issue case study on water quality in the watershed.
- 100% of responding teachers reported that the program helps build critical thinking skills.

Goal 2: Provide 26 teachers with WEI extension lessons.

Outcome 2: 46 teachers achieved goal. Funding from TRF allowed 26 of those teachers to access WEI extension lessons.
- We provided teachers with the extensions, as well as information on how to access our Free Teacher Resources

Additional survey results:

- 94% of students reported feeling comfortable in nature after participating in Classrooms Unleashed.
- 92% of students reported liking science more after participating in Classrooms Unleashed.

Seeking teacher feedback:

Although our Classrooms Unleashed student numbers were slightly lower than expected this fall, we had no trouble exceeding our goal of reaching 700 students with the Watershed Education Initiative this fall. In order to boost student numbers even further, we have begun the process of reaching out to teachers in Washoe County for feedback on our programs. We plan to consider their suggestions as we move forward with regular curriculum review and outreach.

Truckee River Fund

2024 Calendar

January 5	RFP distributed
January 18	10 a.m. TMWA Board meeting
January 29	Draft Agenda to Executive Committee
February 2	RFP/Grant applications due
February 21	10 a.m. TMWA Board meeting
February 16	8:30 a.m. TRF Advisory Committee meeting • Review project proposals • Schedule Fieldtrip(s)
March 20	10 a.m. TMWA Board meeting
April 17	10 a.m. TMWA Board meeting
April 29	Draft Agenda to Executive Committee
May 17	8:30 a.m. TRF Advisory Committee meeting ▪ Discuss nominations for officers (even years) ▪ Review completed projects
June 20	10 a.m. TMWA Board meeting
June 21	RFP distributed
TBD	TMWA picnic
July 17	10 a.m. TMWA Board meeting
July 26	RFP/Grant applications due
July 29	Draft Agenda to Executive Committee
August 21	10 a.m. TMWA Board meeting
August 16	8:30 a.m. TRF Advisory Committee • Review project proposals
September 18	10 a.m. TMWA Board meeting
October 28	Draft Agenda to Executive Committee
November 21	10 a.m. TMWA Board meeting
November 15	8:30 a.m. TRF Advisory Committee • Review/Approve 2024 calendar • Review completed projects
December 12	10 a.m. TMWA Board meeting