CALDOR

Forest and Community Restoration Project

Phase I

Progress Report #1

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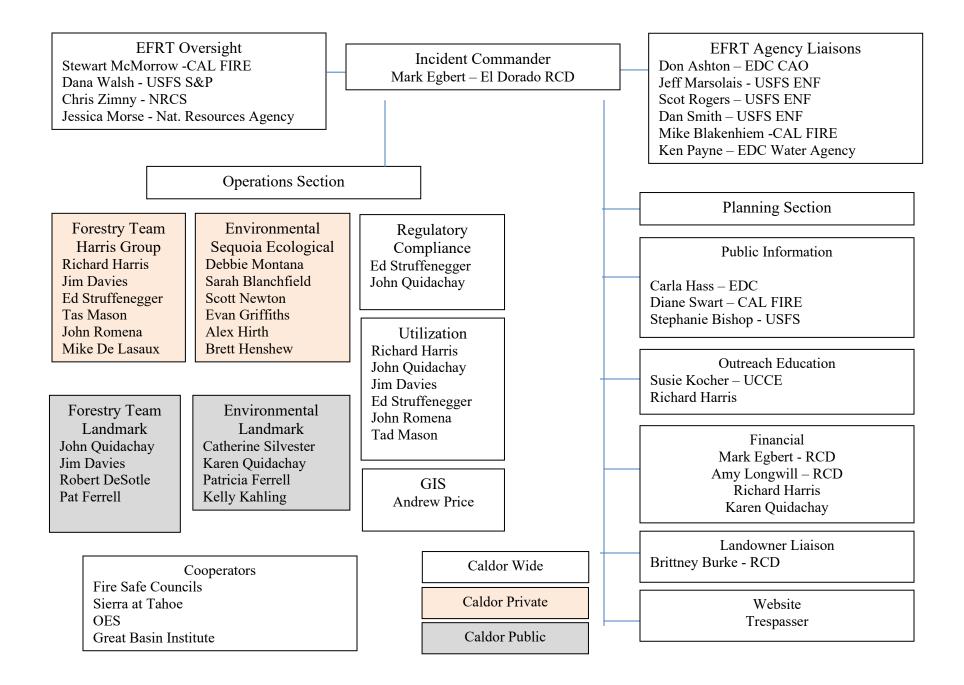
Summary of activities that occurred during the grant reporting period.

BACKGROUND

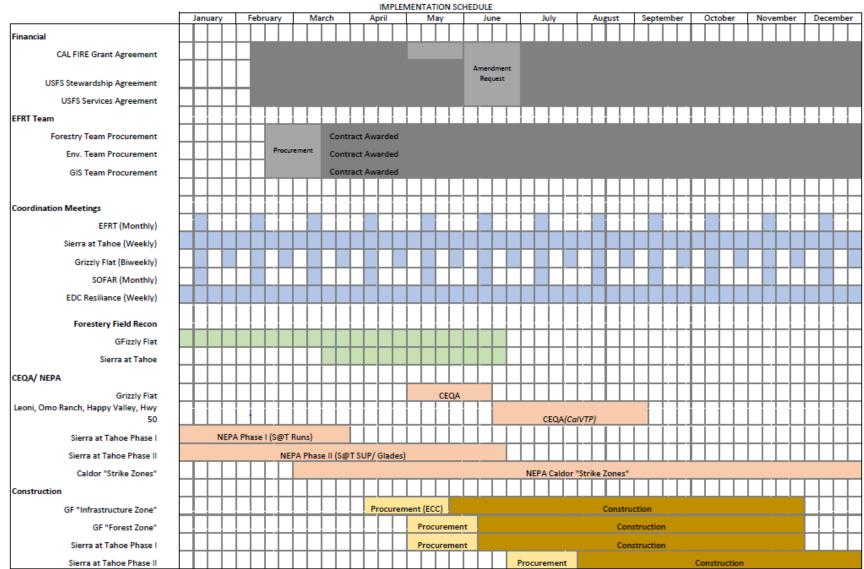
Issued in January 2021, the Governor's "California's Wildfire and Forest Resilience Action Plan," included eight Actions Items to increase assistance to small private forest landowners. Action Item 1.14 stated "Establish Emergency Forest Restoration Teams (EFRT): CAL FIRE and other state agencies will explore the potential for developing emergency forest restorationteams to assist small landowners impacted by wildfires with funding and expertise to restore their properties and help prevent further damage to life, property and natural resources....".

The focus of the EFRT is to provide rapid assessments of post fire forest conditions on NIPF and provide funding to implement necessary forest recovery work. The Wildfire Resilience Task Force – Private Landowner Work Group (WFRTF PLO WG) is responsible for implementing the EFRT Action Item. The PLO WG recommended and was endorsed to implement a "pilot EFRT project" to test the concept. The PLO WG selected the Caldor Fire as a pilot project and El Dorado Resource Conservation District (RCD) as the partner.

The RCD developed the following Incident Command Framework, Team Roster and tentative schedule:



CALDOR FIRE RECOVERY - FOREST RESTORATION ACTION PLAN TEAM CONTACTS							
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ohn Romena	Harris Team	Biomass Utilization	(209) 840-1982		john.romena@yahoo.com		



CALDOR EMERGENCY FIRE RECOVERY TEAM

Task 1: Project Administration

Administration and Management of this project will be the responsibility of the El Dorado County Resource Conservation District (RCD) and include technical and administrative services needed for project completion; assurance the project as described under the Scope of Work is completed within the budget, performance period, and in accordance with approved procedures, applicable laws, and regulations. RCD shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in contracts with other entities for acquisition of goods and services with funds provided by the State under this Agreement. The RCD will provide administrative personnel and Licensed Registered Professional Foresters and will contract for the services of licensed timber operators to perform the treatments.

Budget Item	Description	Budget	Current Expenditures	Cumulative Expenditures	Balance
Task A	Salaries & Wages	\$147,000.00	\$2,113.48	\$2,113.48	\$144,886.52
	RCD staff (M. Egbert)	\$147,000.00	\$1,118.88	\$2,113.40	\$177,000.52
	RCD staff (B. Burke)		\$581.40		
	RCD staff (N. Prettyman)		\$413.20		
Task B	Contractual	\$1,093,000.00	\$90,762.95	\$90,762.95	\$1,002,237.05
	Registered Professional	· / /	. ,	. ,	. , ,
	Forester	\$234,000.00	\$42,622.95	\$42,622.95	\$191,377.05
	Harris Inv#01-2022-1		\$16,267.50		
	Harris Inv#01-2022-2		\$14,805.00		
	Harris Inv#01-2022-3		\$9,310.00		
	NCIC - Arch maps for RPF		\$2,179.70		
	NCIC - Arch maps for RPF		\$60.75		
	Environmental Consultant	\$100,000.00	\$48,140.00	\$48,140.00	\$51,860.00
	Sequoia Inv#2022144		\$23,300.00		
	Sequoia Inv#2022185		\$24,840.00		
	Construction Contractor	\$759,000.00	\$0.00	\$0.00	\$759,000.00
Task C	Supplies	\$5,000.00	\$1,200.00	\$1,200.00	\$3,800.00
	esri - GIS software & license Inv#94246629		\$1,200.00		
Task D	Other	\$5,000.00	\$899.99	\$899.99	\$4,100.01
	EDC Recorder - NOE filing	· · · · · ·	\$51.25		i
	Meeting supplies 4/7/22 &				
	6/10/22		\$66.18		
	Seedling grants 2022 Surplus		\$382.56		
	EDC Fair 2022				
ТОТАІ			\$400.00		
TOTAL DIRECT					
COSTS		\$1,250,000.00	\$94,976.42	\$94,976.42	\$1,155,023.58

The RCD has adopted budget from which the following expenditures have been made (7.6% complete).

The RCD has acquired the following consultants and contractors through competitive procurement procedures:

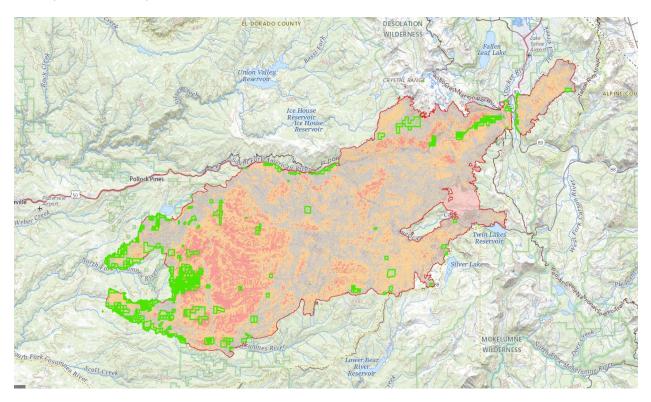
- 1) Landmark Environmental: Agreement #Caldor 02-2022a. Environmental Consulting Services.
- 2) Sequoia Ecological: Agreement # Caldor 02-2022b. Environmental Consulting Services.
- 3) Harris Consulting Group. Agreement #Caldor 01-2022a. Registered Professional Forester Services.
- 4) Landmark Environmental. Agreement #Caldor 01-2022b. Registered Professional Foresters.
- 5) Kingsborough Atlas Tree Surgery, Inc. Agreement #06-2022. Vegetation Management Contractor.
- 6) Price Geographic. Agreement # Caldor 01-2022c. GIS services.

Task 2: Project Planning

Task 2a: Mapping and Stratification (Private Lands).

There are over 14,206 +/- acres of NIPL in the Caldor burn perimeter. Six distinct non-industrial private landowner project units have been identified based on specific criteria including: geographic location, watershed connectivity, land use, access, pre-fire vegetation condition (mixed conifer forest vs oak woodland), Timber site class, BAER analysis, WERT analysis, values at risk, soil type, slope, Wild-land Urban Interface proximity, community input, and resource availability.

Distribution of private lands (Green) within the Caldor burn perimeter are shown below with the burn severity as the underlay:



The six units have been defined as follows:

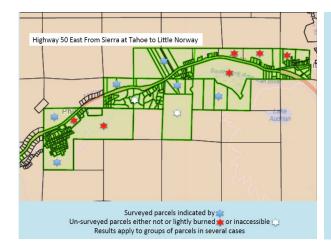
- Unit 1: Hwy 50 (2188 acres),
 - This area includes several summer home tracts and surrounding larger parcels,
 - In general, vegetation is high elevation mixed conifer,

• A number of parcels were not burnt or were burnt at very low to low severity. Some parcels have not been accessible due to road closures,

• Several parcels are located on steep slopes (>35%),

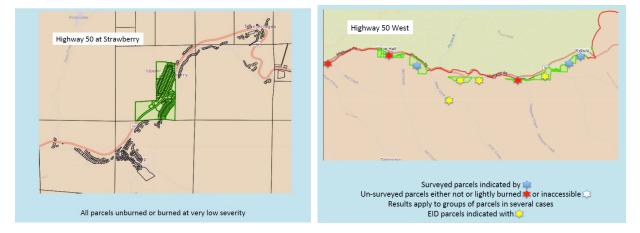
• Existing actions by PG&E, OES, and USFS are underway removing hazardous trees along utility right-a-ways, roads, and structures,

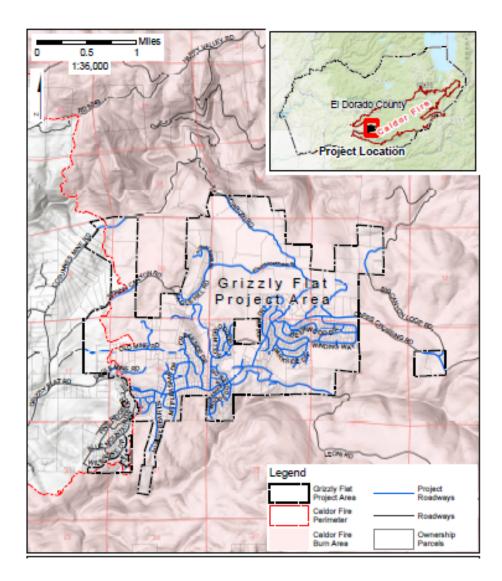
• The South Fork American River is the major hydrologic feature.





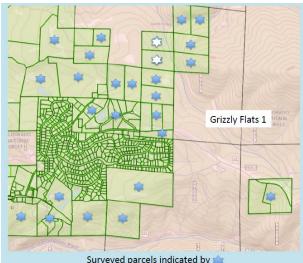
Surveyed parcels indicated by a Un-surveyed parcels either not or lightly burned or inaccessible Results apply to groups of parcels in several cases





- Unit 2: Grizzly Flat (2714 acres),
 - Priority for field review was assigned to parcels that surround the formerly developed area of Grizzly Flat under the assumption that reducing fuel loads and restoring forest cover in that area would provide benefits to the future of the community.
 - Fire suppression repair and emergency stabilization and hazardous materials removal is heavily underway within the formerly developed area of Grizzly Flat under the actional organized by OES, County of El Dorado and FEMA.
 - Many parcels experienced severe fire effects and total mortality of trees.
 - Pre-fire forest types were generally mixed conifer forest with a high merchantability component.

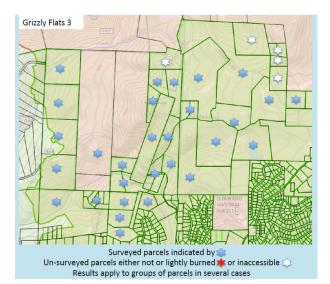
- Access is generally good and operational constraints due to steep slopes and watercourses are limited to a few areas such as the inner gorge of Spring Canyon. Some parcels are highly susceptible to debris flow hazards.
- There is extensive evidence of historic mining, including large pits and tailing piles.
- PG&E is aggressively clearing power lines and associated trees within the Right-a-Way.

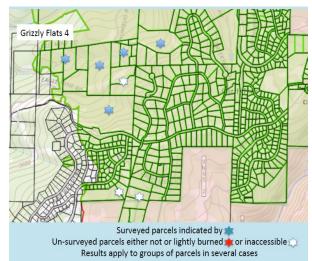


Surveyed parcels indicated by 🛬 Un-surveyed parcels either not or lightly burned 🌟 or inaccessible 💭 Results apply to groups of parcels in several cases



Un-surveyed parcels either not or lightly burned 🛶 or inaccessible 🗯 Results apply to groups of parcels in several cases



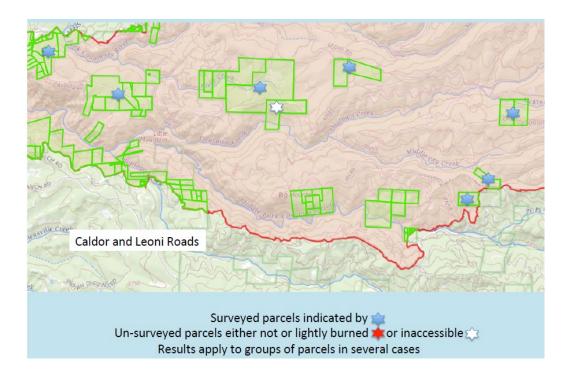


• Unit 3: Caldor/ Leoni Unit (3284 acres),

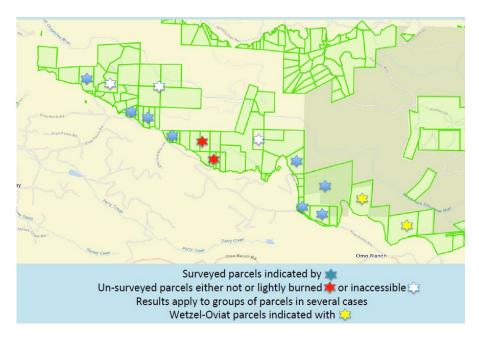
• Surveyed areas include properties along Carolina Road, Henry's Diggings, Leoni Camp, and several outlying properties.

• Leoni Camp is being excluded from the EFRT due to the Camp receiving a \$4,200,000.00 grant from CAL FIRE for post-Fire restoration.

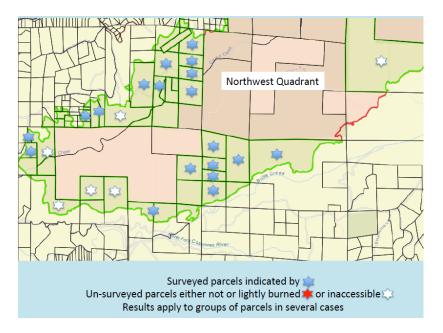
- Vegetation types are mixed conifer, ponderosa pine and hardwood conifer.
- Merchantability I generally intermediate.
- Mortality is moderate to severe,
- Evidence of planned management (Emergency Notice for timber harvest).



- Unit 4: Omo ranch Unit (1942 acres),
 - Areas surveyed indicated those on the periphery o the burn with moderate to low burn severity,
 - Areas are steep with a majority of land >35% slopes.
 - Vegetation is mainly oak woodland and hardwood-conifer forest types.
 - Areas are primarily surrounded by Sierra Pacific Industries and USFS lands.



- Unit 5: Northwest Quadrant Unit (3171 acres),
 - Areas surveyed are located within the Camp Creek and Butte Creew watersheds,
 - Vegetation was generally montane hardwood conifer and very limited ponderosa pine,
 - Mortality is low to moderate,
 - Extensive erosion occurring.



• Unit 6: Individual Forest Management Plan (FMP) Unit (907 +++ acres).

Prior to the Caldor Fire, the RCD, in partnership with the USDA - Natural Resource Conservation Service (NRCS) and Cal Fire, developed Conservation Plan/Forest Management Plan (CP/FMP)" for private non-

industrial landowners. These plans would be adopted by the landowners and forwarded to the NRCS or CAL FIRE for application to their respective cost-share programs (EQIP/CFIP).

The EFRT provides an opportunity to accelerate recovery through direct funding of the approved Conservation Plan/Forest Management Plan (CP/FMP)" using EFRT funding. However, the ERFT team recognizes that there are greater needs than what the EFRT can provide. As such, coordination of landowner technical assistance and integration into one program or another will be equitable and consistent with the programmatic constraints of each program and guidelines established for each respective program.

When landowners are identified by any partner, or when a landowner approaches one of the partners for assistance, three options are proposed:

1) if within the Caldor Fire,

a. the NRCS can prepare a plan and proceed through EQIP or,

b. the landowner can acquire a private Registered Professional Forester to develop a plan and proceed through CFIP or,

c. the NRCS/ CAL FIRE refers the client to the RCD to prepare the plan under EFRT. If EFRT funding is available, the RCD will implement the plan. If EFRT funding is not available, the RCD will refer the client back to the NRCS and CAL FIRE.

- 2) If outside the Caldor Fire,
 - a. the NRCS can prepare a plan and proceed through EQIP or,

b. the landowner can acquire a private Registered Professional Forester to develop a plan and proceed through CFIP or,

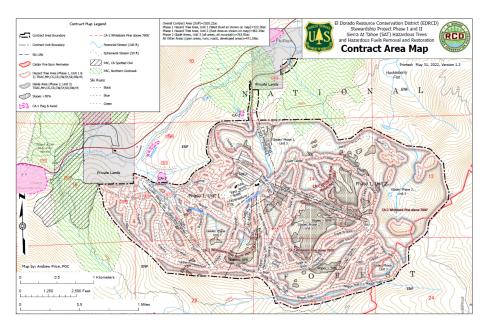
c. the NRCS/ CAL FIRE refers the client to the RCD to prepare a plan under the Regional Forest Partnership Program (RCPP) that would qualify them for EQIP funding. This would be a joint planning effort between the RCD and NRCS.

Task 2a: Mapping and Stratification (Federal Lands).

There are an undetermined number of acres within federal lands managed by the USFS – Eldorado National Forest that will be ultimately covered under an EFRT initiative. Coordination with the USFS and their schedule of activities will be a process over the course of the next five-years to ensure the priority area recovery actions take place. However, three distinct areas within the Caldor burn perimeter have been identified:

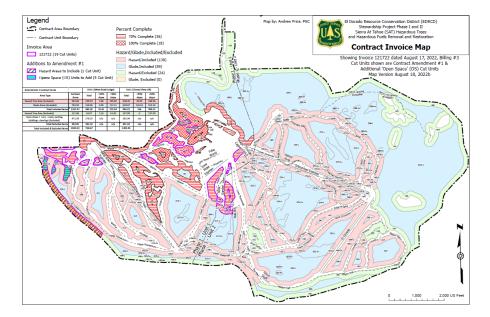
- Sierra at Tahoe Special Use Permit area,
- Recreational Cabin and Recreation Areas No progress to date,
- Lands immediately adjacent to private lands "strike zone" No progress to date.

Sierra at Tahoe Special Use Permit area:



The proposed project consists of removing dead and dying trees from within 150-feet of existing facilities and the associated glades where recreation users and employees congregate at the Sierra at Tahoe ski resort located on U.S. Department of Agriculture Forest Service [USFS]-Eldorado National Forest (ENF) lands. Recovery efforts on ENF lands are funded by ENF through a Stewardship Agreement with RCD. The area of the Agreement includes the Caldor Fire footprint on ENF lands and adjacent areas likely to impact the future of restoration investments in this landscape. The Sierra at Tahoe ski resort is within the Agreement area on ENF lands. Mapping and stratification have been compete.

Accomplishments to date:



Task 2b: Environmental Inventory and Field Work.

Field investigations will be conducted to verify the results of our mapping, produced in Task 2a. To properly evaluate project operational needs we will need to obtain site-specific information on issues such as debris loads, presence and sizes of standing dead trees and downed wood. This information is essential for us to prepare contract specifications for site preparation and planting and to determine equipment requirements. On the basis of our review of existing information and field work, we will prepare an environmental assessment for the project areas that addresses: 1) existing and future improvements (i.e., re-built structures); 2) existing vegetation and wildlife habitat; 3) topography; 4) site class; 5) erosion hazard rating; 6) watercourses, wetlands and streamside protection zones; 7) cultural resources; 8) sensitive biological resources (plants and wildlife); 9) access and road conditions; 10) other environmental attributes as determined through consultation.

The RCD has determined that the private land recovery work within the Grizzly Flat project area is categorically exempt pursuant to CEQA Guidelines Section 15304 (Minor Alterations to Land, Class 4) and Section 15269 (Emergency Projects). The following analysis demonstrates that the actions would not result in adverse environmental effects, supporting the RCD's determination that the proposed activities are categorically exempt under CEQA. The emergency hazard tree removal and restoration project would be conducted in compliance with applicable federal, State, and local regulations and under contractual provisions prohibiting work in violation of applicable regulations and plans.

CEQA Guidelines Section 15304 states that a Class 4 Categorical Exemption consists of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of mature, scenic trees except for forestry and agricultural purposes. Examples include but are not limited to:

a) Grading on land with a slope of less than ten (10) percent, except that grading shall not be exempt in a waterway, in any wetland, in an officially designated (by federal, State, or local government action) scenic area, or in officially mapped areas of severe geologic hazard, such as an Alquist-Priolo Earthquake Fault Zone or within an official Seismic Hazard Zone, as delineated by the State Geologist;

b) Issuance of a grading permit in conjunction with a project for which a design review approval has been granted and/or following any discretionary action which was subject to environmental review;

c) New gardening or landscaping; including the replacement of existing conventional landscaping with water efficient or fire resistant landscaping;

d) Filling of earth into previously excavated land with material compatible with the natural features of the site;

e) Minor alterations in land, water, and vegetation on existing officially designated wildlife management areas or fish production facilities which result in improvement of habitat for fish and wildlife resources or greater fish production;

f) Minor temporary use of land having negligible or no permanent effects on the environment, including carnivals, outdoor festivals/concerts, sales of Christmas trees, arts and crafts fairs, etc.;

g) Minor trenching and backfilling where the surface is restored;

h) Maintenance dredging where the spoil is deposited in a spoil area authorized by all applicable State and federal regulatory agencies;

i) The creation of bicycle lanes on existing rights-of-way.

j) Fuel management activities within 30 feet of structures to reduce the volume of flammable vegetation, provided that the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. This exemption shall apply to fuel management activities within 100 feet of a structure if the public agency having fire protection responsibility for the area has determined in writing, or by written policy or ordinance, that 100 feet of fuel clearance is required due to extra hazardous fire conditions. (Ord. 5119-B, 2001)

Additionally, the project qualifies as an emergency project pursuant to CEQA Guidelines Section 15269 (Emergency Projects), based on Governor Brown's October 30, 2015, State of Emergency and Executive Order B-42-17. The October 30, 2015, State of Emergency went into effect due to the unprecedented tree mortality resulting from severe drought and bark beetle infestations across several regions of the State. Executive Order B-42-17 bolstered the State's response to unprecedented tree die-off tree and declared the 2015 State of Emergency to still be in full effect. To qualify for the Emergency Exemption based on Governor Brown's October 30, 2015, State of Emergency and Executive Order B-42-17, a project may only remove dead and dying trees within designated high fire hazard areas and incidental vegetation that must be removed for accessibility purposes. The dead and dying trees must threaten power lines, roads and other evacuation corridors, critical infrastructure, and/or other existing structures. Specifically, CEQA Guidelines Section 15269 (Emergency Projects) exempts:

a) Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster in a disaster stricken area in which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act, commencing with Section 8550 of the Government Code. This includes projects that will remove, destroy, or significantly alter an historical resource when that resource represents an imminent threat to the public of bodily harm or of damage to adjacent property or when the project has received a determination by the State Office of Historic Preservation pursuant to Section 5028(b) of Public Resources Code.

b) Emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety or welfare. Emergency repairs include those that require a reasonable amount of planning to address an anticipated emergency.

c) Specific actions necessary to prevent or mitigate an emergency. This does not include longterm projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term, but this exclusion does not apply (i) if the anticipated period of time to conduct an environmental review of such a long-term project would create a risk to public health, safety or welfare, or (ii) if activities (such as fire or catastrophic risk mitigation or modifications to improve facility integrity) are proposed for existing facilities in response to an emergency at a similar existing facility.

d) Projects undertaken, carried out, or approved by a public agency to maintain, repair, or restore an existing highway damaged by fire, flood, storm, earthquake, land subsidence, gradual

earth movement, or landslide, provided that the project is within the existing right of way of that highway and is initiated within one year of the damage occurring. This exemption does not apply to highways designated as official State scenic highways, nor any project undertaken, carried out, or approved by a public agency to expand or widen a highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide.

e) Seismic work on highways and bridges pursuant to Section 180.2 of the Streets and Highways Code, Section 180 et seq.

The RCD has determined that the federal land recovery work within the Sierra at Tahoe Special Use Permit project area requires analysis pursuant to the National Environmental Policy Act (NEPA) because it is located on federal land, and because implementation is financed with federal funds. Review pursuant to the California Department of Environmental Quality Act (CEQA) is required because RCD is taking a discretionary action to facilitate and implement the project activities. ENF prepared NEPA documents for the Sierra at Tahoe ski resort, including the Sierra Ski Ranch Proposed Expansion Environmental Assessment (EA) and the West Bowl Lift and Runs EA. The Sierra Ski Ranch Proposed Expansion EA was adopted September 12, 1977, and the Decision Notice for the West Bowl Lift and Runs EA was signed February 9, 2001. Operation and maintenance of the ski resort is authorized through an existing Special Use Permit issued by ENF which is valid through March 31, 2057. ENF has authorized the proposed activities under the existing Special Use Permit in a letter to the Sierra at Tahoe ski resort General Manager, dated March 9, 2022, and the existing NEPA documentation. Additional recovery treatments within the Agreement area, including at Sierra at Tahoe, have been authorized under subsequent CEQA and NEPA decisions.

All protection measures identified in the SUP and NEPA documents have been incorporated into the project design and enforced during implementation. These measures include but are not limited to, protection of natural and cultural resources. Furthermore, activities would be in accordance with the standards and guidelines described in the Eldorado National Forest Land and Resource Management Plan (USDA 1989), the Sierra Nevada Plan Amendment (USDA 2004), and the National Best Management Practices for Water Quality Management on National Forest System Lands, Volume 1 (USDA Forest Service 2012). These standards and guidelines include Best Management Practices (BMPs) that would be adhered to throughout implementation of the project and which provide for consistency with the Forest Plan and other guidance, and/or they minimize or eliminate potential impacts to water quality, cultural, biological, and other resources in the area.

Task 2c: Management Plans and Reforestation Prescriptions.

We will develop management objectives and policies for the project areas as a whole in consultation with participating property owners. On the basis of agreed upon objectives and policies, we will prepare overall management plans for the two areas. The management plans will adhere to the format of the Environmental Quality Incentive Program (EQIP) as well as the California Forest Incentive Program (CFIP) to the extent possible. We will present the plans to participating property owners and obtain their consent as signatories. We will then forward the plans to NRCS and CAL FIRE respectively for review.

Each property will be treated as a management unit. In consultation with each landowner, we will prepare reforestation prescriptions for each parcel that address: 1) site preparation including removal of standing and down fuels, emphasizing utilization where feasible as biomass for energy production and firewood (note that site-specific standards for leave trees, snags and downed woody debris will be developed as part of the prescriptions); 2) best management practices to be implemented during site preparation; 3)

recommended tree species and stocking; 4) planting practices to be performed by contractors, volunteers and/or landowners; 5) post-planting implementation monitoring. We anticipate that single prescriptions will apply to multiple parcels. We will refine the costs presented in our budget for each prescription based on standard operating procedures and EQIP/ CFIP cap rates. Future management of the project areas as a whole and for specific parcels will be projected based on landowner objectives. Some parts of the project areas are likely to be available for long-term timber management and harvesting while other areas will be unavailable.

Private lands within Grizzly Flat:

The desired condition in all areas for planting is that sites are cleared of debris and standing and down dead trees that contribute to fuel loads and could damage planted trees. Also, there should be little or no shrub cover that can impair planting or compete with planted trees. The desired condition is illustrated in the three photographs that follow.



The above photograph illustrates post-treatment conditions where the site is cleared of debris, all or most dead standing trees are removed, and there is little or no shrub or grass cover. An additional measure not shown in the photograph is deep ripping which may be conducted to ensure successful reforestation is achieved. Photograph taken immediately following salvage logging in 2015 at the King Fire.



The above photograph shows a site prepared for planting by removing un-merchantable trees, retaining live trees, and brush raking. Note brush raked piles are prepared for burning. Photograph taken spring of 2016 at the King Fireu. The following picture illustrates a site that has been deep ripped on the contour

for erosion control and to enhance soil conditions for planting after removal and disposal of logs and debris.



Although treatment objectives in all areas are essentially the same, the variability in conditions may require application of different practices in each area. For example if in the interim between site preparation and planting there is significant regeneration of competing brush species in specific areas, herbicide applications may be required. Also, in some instances landowners have requested that specific trees be left for their use. To the degree possible the RCD will accommodate their wishes.

Time is of the essence for this project. The RCD has ordered seedlings in anticipation of planting during the winter-spring 2023. The goal is to achieve effective reforestation of the participating parcels and thereby facilitate long-term stewardship. The project has three phases:

Phase 1: Site Preparation

- Clearing properties of standing and down dead trees and associated slash and debris.
- Removing vegetation that would compete with planted trees (primarily shrubs, forbs and grasses).
- Hauling trees and brush to piles (option).
- Hauling selected trees to designated landings.
- Burning piles (option).
- Masticating or chipping trees and brush (option).
- Deep ripping or tilling on the contour (in appropriate locations)

Mastication Measurable Performance Standards

Mastication is an acceptable option for disposing of trees and debris. Vegetative material may be shredded, mulched, or chipped. Residual masticated vegetative debris resulting from contractor's operations shall lie flat on the ground and generally not exceed six inches in height over 95 percent of the unit. Individual pieces of vegetative debris shall generally not exceed three feet in length over 95 percent of the unit. No masticated or cut material shall accumulate against leave trees.

Cut and Pile Measurable Performance Standards:

Tractor or brush rake yarding and piling logs and debris for burning is an acceptable disposal option. All standards shall be measured to 95 percent of any given specification. Piles shall be neat, compact and sufficiently free of dirt to allow consumption of the piled debris when burned. Piles shall be constructed by alternating the butt ends of the logs and tops to help provide fine material on either end of the pile, to

achieve pile compaction and to help aid in ignition. A portion of the pile shall be covered with paper to enhance ignition.

- No maximum height is required for piles.
- Piles of vegetative material will have a minimum height of eight feet. Vegetative
- material will be moved distances up to 150 feet or as necessary to attain minimum height.

• Piles shall be located to minimize damage to residual live trees (at least 25 feet from the drip line of live trees) when piles are burned. No piles shall be located within 50 feet of ephemeral stream channels, within 100 feet of intermittent or perennial drainages or within 50 feet of treatment unit boundaries. No piles will be located within 150 feet horizontal distance of power lines or transmission lines.

• Piling shall be accomplished with minimal disturbance to topsoil. Minimize turning of tracked equipment.

• A fire line to mineral soil shall be constructed around each pile and shall be a minimum three feet wide.

Contractor Equipment

Contractors may use mechanical and hand tools as described below. The contractor shall furnish fuel and all supplies for equipment maintenance. Equipment shall be cleaned before entering the project area to prevent spread of noxious weeds and pathogens. Equipment should be free of leaks, in good operating condition, and have spark arresting equipment or a supercharger. Any equipment powered by an internal combustion engine operated on hydrocarbon fuels shall meet the fire law requirements of PRC 4427 through 4442.

<u>Track-Mounted Mastication</u>-Performance measures for mastication are to process standing and downed dead trees and brush to a treatable height from ground level, such that the vegetation is cut or broken into small pieces, generally no greater than one foot in length. As described below, a certain amount of secondary processing may be necessary to eliminate larger pieces of fuel. Process vegetation to a height of at least 25 feet. The tops of trees that exceed the reach of the masticating head will fall to the ground in one large piece. These must secondarily be processed with the masticating head.

In some relatively open treatment areas, an excavator-mounted masticating head with substantial "tail swing" will be suitable. A machine with zero tail swing; that is, one where the cab and boom can swing within its own footprint, may be necessary to prevent damage to a residual live trees. See also <u>Mastication Measurable Performance Standards.</u>

<u>Drum Mastication</u> – Smaller masticators capable of processing fuels near to the ground may be applicable in areas with substantially reduced vegetative material. This would treat relatively light surface fuels.

<u>Feller-Bunching and Skidding of Bundled Material</u> – In this treatment a feller-buncher is used to sever trees as close to ground level as is practical, but no higher than six inches from high ground level, unless constrained by rocks. Trees are severed and bundled, so that the bundles are skidded efficiently to a landing for treatment/ disposal. Typically, a rubber-tired skidder would be the secondary equipment needed to skid the bunched material.

<u>Hand Piling</u> – This is a treatment where material is piled by hand in openings suitable for burning. Refer to <u>Cut and Pile Measurable Performance Standards.</u>

Broadcast Burning—Not allowed.

<u>Pile Burning</u> – Includes the preparation, ignition, monitoring, and notification of permitting and firefighting agencies. The contractor may be required to access the project area via OHV or other means to avoid damage to wet roads.

<u>Chipping or Tub Grinding of Piles</u> – Where feasible and cost-effective, slash piles created by fellerbuncher and skidding may be processed on site to convert to hog fuel or chips. This material may be broadcast throughout the immediate area to a depth no greater than six inches.. Chips should not be larger than four inches.

<u>Suggested Equipment Standards for Track-Mounted Masticators and Feller-Bunchers</u> — It is expected that in order to meet the described performance measures, the process of mastication will be most effective utilizing machines equipped with a large drumhead- type masticator mounted on a tracked excavator, or on a feller-buncher. Smaller machines where the processing head is on the ground may work in some areas, but generally are ineffective for taller vegetation. The critical characteristics of the machine are that it is a minimum 190 horsepower engine and has an effective reach of approximately 25 feet. This would be equivalent to a Cat 325 excavator. The machine needs to be able to work on slopes up to 45 percent, and work its way through a treatment area without damage to residual vegetation, with a track width of 12 feet or narrower. In some relatively open treatment areas, an excavator-mounted masticating head with substantial "tail swing" will be suitable. However, in many circumstances, particularly where dead trees are intermixed with live residual trees, a machine with zero tail swing; that is, one where the cab and boom can rotate within its tracks, will result in easier operations and less damage to the residual trees.

The cutting head may be either a "hot saw" or "bar saw" configuration, but significantly higher seasonal fire restrictions may apply to a hot saw.

<u>Contour Tilling/Ripping</u> – This is mechanical turning of the soil with a plow or ripping device to promote soil infiltration by breaking up water repellent soil layers. Treatments may increase the amount of macropore space in soils by physical breakup of dense or water repellent soils, and thus increase the amount of rainfall that infiltrates into the soil. This practice will be applied in appropriate locations as determined by the supervising forester. Shallow soils, rock outcrops, steep slopes, incised drainages, fine-textured soils, and high stump density create significant problems for tilling and ripping. These treatments work best where there is a good soil depth, the soils are coarse textured, slopes are less than 30 percent, and stump density is low. This type of treatment has a high logistics support requirement (fuel, transport carriers, access, and drainage crossing). Since tilling and ripping are ground-disturbing activities, cultural clearances will be obtained prior to implementation of this practice.

Contour tilling has been successfully implemented using a D-6 cat with a tool bar. On the tool bar there are three winged rippers mounted. This enables a fairly high production rate. The operator does not have much difficulty staying on the contour in areas that are open. Tilling depth and distribution of contour strips can be modified on site by the supervising forester. Tilled depths can range from eight to 18 inches, and distance between ripped contours is modified as the slope becomes steeper.

Phase 2: Pre-Planting Control of Competing Vegetation (if required)

If warranted due to regeneration of brush that would compete with planted trees, application and timing of herbicide application will be conducted under the recommendation of a Certified Pest Control Advisor within authorized areas. The following provisions would apply to pre-planting herbicide applications and post-planting applications if authorized by the RCD to ensure successful reforestation and survival of seedlings.

1. Licensed with the State - CDPR- contractor must possess a current pest control business license (licensed through the Department of Pesticide Regulation, for the State of California) if performing pest control for hire (i.e., advertising, soliciting, or operating as a pest control business).

2. Register with the County Dept. of Agriculture - contractor must register the pest control business license with the County Agricultural Commissioner's office. To register the business license, the individual who possesses the QAL card and is responsible for pest control business operations at that location must present the following items to the County Agricultural Commissioner's office: Pest Control Business License and QAL card with appropriate pest control category.

3. Provide an inventory of pest control equipment including number and kind of equipment.

4. Have a current El Dorado County Business License.

5. The contractor shall assure that employees who handle pesticides have been trained and maintain a written training program.

6. After completion of all pesticide applications, the contractor is required to maintain pesticide use records. The contractor shall report a summary of the monthly use of pesticides to the County Agricultural Commissioner.

7. Prohibited activities within 100 feet of an unprotected well:

- Rinsing or maintenance of spray equipment that could result in spillage or pesticide residues on the soil.
- Mixing, loading, and storage of pesticides.
- Application of pre-emergent herbicides.

Any questions pertaining to the requirements outlined above should be directed to the County of El Dorado Department of Agriculture, Weights & Measures.

The pest control operator must follow all:

- Food and Ag (FAC) Division 6, laws pertaining to pest control operators,
- California Code of Regulation (CCR) Title 3, Division 6. Pesticides and Pest Control Operations,
- El Dorado County ordinances as determined by the Agricultural Commissioner.

Phase 3: Tree Planting

Planting will be done with a mix of species characteristic of Sierra mixed conifer forest type at this elevation (ponderosa pine, sugar pine, Douglas fir, incense cedar) with the anticipation that associated species such as black oak and white fir will naturally recruit into the stands. Planting stock has been ordered from the USFS Placerville Nursery using seed from the appropriate seed zone. In the case of sugar pine, rust resistant genotypes have been ordered. Planting prescriptions will be developed in consultation with landowners to meet their objectives in terms of species, density and location.

Trees to be planted will be provided by the RCD and the cost of those seedlings is not to be included in the respondent's Schedule of Items/ Cost Proposal Form. They will consist of 1-0 bareroot stock and 1-0 plugs. The mix of species will be prescribed prior to planting. The target planting density is approximately 200 trees/acre. Planting crews may be instructed to plant trees in a random pattern or in clusters as opposed to a straight line. The timing of tree planting will occur during the spring months between February and April or fall and early winter between November (after first precipitation event exceeding one inch) and January, when soil moisture conditions are adequate to support seedling root growth. Any site preparation completed during the planting season will require immediate planting.

Phase 4: Post-Planting Control of Competing Vegetation (if authorized by the RCD)

Signed Right of Entry Agreement will be obtained from each property owner for this work to be performed.

Federal Lands at Sierra at Tahoe Special Use Permit

The SAT's goal is to start with Phase I to eliminate fire killed and high-risk green fire damaged hazardous trees and hazardous fuels along the 757+ acres of ski-run trails for the safety of skiers and SAT employees. A variety of methods contained in the specifications will be used.

Phase II (aka Glade Areas) (764 +/-) will follow later this spring through summer and fall of 2022 and 2023, felling and removing hazardous fire killed and high-risk fire damaged green trees.

Phase I Scope of Work and Specific Objectives (ACRES: 757 +/-): The primary objective of Phase I is to substantially reduce or eliminate the threat of fire killed trees and high-risk fire damaged green trees standing 150' from ski-run trails within the SAT ski area boundary for the safety of skiers and SAT employees. The work will consist of eliminating trees hazards and treating hazardous fuels using a variety of methods to include but not limited to:

- Felling fire killed trees with chainsaws
- Feller bunchers
- Helicopter or high-lead cable
- Felling and yarding large commercial size trees greater than 14' DBH and cull material to decking areas or landings using conventional ground-based equipment generally on contiguous slopes less than 50%. Ground based equipment may be able to operate on short pitches of up to 50% where material can be endlined or grappled with minimal soil disturbance. Aerial systems, helicopter or high lead cable will be reserved for slopes generally over 50% and terrain inaccessible by conventional means.
- All small fire killed trees up to 14" DBH shall be felled and removed, chipped on site or lopped and scattered (slopes >50%) to reduce hazardous fuels.

• Large unutilized material 16" large end and 10' in length shall be removed, broadcast chipped, or masticated and left in place, exceptions will be made for soil stabilization, or use by wildlife on a case-by-case basis.

Phase II Scope of Work and Specifications (ACRES: 764 +/-): The primary objective of Phase II is to substantially reduce or eliminate the threat of fire killed trees and fire damaged high-risk green trees within the Glade areas for the safety of skiers and SAT employees. The work will consist of eliminating hazard trees and treating hazardous fuels using a variety of methods to include but not limited to:

- Felling fire killed trees with chainsaws
- Feller bunchers and processors
- Helicopter or high-lead cable
- Felling and yarding large commercial size trees greater than 14' DBH and cull material to decking areas or landings using conventional ground-based equipment generally on contiguous slopes less than 50%. Ground based equipment may be able to operate on short pitches of up to 50% where material can be end-lined or grappled with minimal soil disturbance. Aerial systems, helicopter or high lead cable will be reserved for slopes generally over 50% and terrain inaccessible by conventional means.
- All small fire killed trees material up to 14" DBH shall be felled and removed, chipped on site or lopped and scattered (slopes >50%) to reduce hazardous fuels.
- Large unutilized material 16" large end and 10' in length shall be removed, broadcast chipped, or masticated and left in place, exceptions will be made for soil stabilization or use by wildlife on a case-by-case basis.

Task 2d: CEQA Clearance.

Once the management plans have been completed, we will conduct CEQA clearance. An Initial Study will be conducted for the overall management plans. On the basis of that, a Negative Declaration, Mitigated Negative Declaration or Categorical Exemption will be filed and subjected to public and agency review. As part of the analysis, the potential impacts of each parcel's reforestation prescription will be determined. The outcome of this sub-task will be environmental clearance for implementation.

See description under section 2b.

Task 3: Implementation

Task 3a: Site Preparation.

The project of necessity must be phased over a multi-year period because of the time needed to grow seedlings. The first phase will be site preparation under the supervision of the RPF.

In general, for those areas where there are standing dead trees and/or extensive downed wood and debris site preparation may include harvesting with a masticator, feller buncher or other methods and yarding the material most likely with a grapple skidder. Operating on the contours and following prescribed best management practices will minimize ground disturbance. Sensitive areas will be flagged in the field by the RPF. The RPF will also mark all living and dead trees that are to be retained.

The disposition of removed materials has not yet been determined. In the case of masticator, the material will be left in place with contract provisions specifying the allowable depth to ensure against impairment of planting. If some or all of the material cannot be utilized it will either be chipped and spread on site or piled and burned. The time that has elapsed since the fire may have created some conditions where competing vegetation has occupied sites. This will be ascertained during our field investigations. If

additional site preparation practices are warranted to facilitate planting and tree survival we will include those within the site preparation contracts as work items.

See description above under task 2.

Task 3b: Seedling Procurement and Planting.

Procurement of planting stock and conducting the planting under the supervision of the RPF will be conducted. We will need to order seedlings by the fall of 2021 to ensure that they are available for planting in the winter of 2022 or Spring of 2023. Our planning will be sufficiently complete by the fall to allow us to estimate seedling quantities by species. Our contract with the Placerville Nursery to grow seedlings for non-industrial landowners facilitates this step in the process. We will: 1) assess the availability of suitable seed at the Placerville Nursery (in the event that suitable seed is not available at the Nursery, we will check with the L.A. Moran seed bank; if suitable seed for desired species is not available at either location, we will propose alternatives to landowners); and 2) compile a seedling order form to be submitted to the Nursery. The RCD will explore all cost-effective possibilities for doing the planting including the use of volunteers, property owners and other labor. Any planting by non-professionals will be preceded by adequate training in the handling of stock and proper planting technique.

Seedlings have been orders for both the Grizzly Flat and Sierra at Tahoe project areas.

Task 4: Monitoring, Reporting and Outreach

Task 4a: Implementation Monitoring.

We will monitor all phases of the project, including site preparation and planting. RPF supervision during site preparation is essential if contract requirements and environmental protection measures are to be guaranteed. It is common for practices to change during implementation because of unforeseen issues. Adaptation can only be allowed with consent from the RPF and RCD. Plantings will be monitored during and immediately after completion to determine if they were properly implemented. Permanent photopoints will be established so that reforestation progress can be monitored over time. Contracts will remain open so that any disclosed deficiencies can be corrected. We will prepare progress reports on the results of monitoring including an evaluation of each step in the process.

Grizzly Flat Project area is in the procurement phase and implementation has yet to begin.

The following implementation monitoring report is for the Sierra at Tahoe Special Use Permit area:

The RCD has acquired Landmark Environmental, Inc. (LEI) to assist with pre- and post-resource surveys and documentation. During implementation, the Supervising RCD Forester is responsible for reviewing Contractor compliance with the resource protection measures. Compliance issues are documented on the Forester's Field Form. The Supervising RCD Forester will notify the RCD of compliance issues requiring immediate corrective action as they occur and will provide weekly updates of operational activities in an e-mail, including the results of resource protection measures.

nsitive			meframe/Limited	onitoring and Reporting		Report Review
Resource	otection Measure	scription of Protection Measure	Operating Period	Responsible Party	Reporting Method	Responsible Part
		hite bark pine surveys shall be conduct prior				
		to implementation. Occurrences will be				
		flagged for avoidance. Reporting includes				
		area surveyed, (1) number of trees at each				
		occurrence, evidence of disease such as				
		branch dieback or pitch tubes, status of tree				
	rvey for white bark	(living/dead), fire effects, identification	or to, and during,		bmit GIS data/mapping	D and ENF Forest
	pine	confidence, general comments.	implementation	D Forester (LEI)	with data collected	Botanist
		treatments will occur within the flagged			nfirmed flagging and	
		areas for white bark pine, unless otherwise			violations will be	
		determined appropriate by the approved			documented in Field	
		ENF botanist. Hand felling of trees and			Form and included in	
		shrub removal may occur within area if an			weekly operations e-	
		approved botanist determines the effects			mail. Major violations	
tanical		would be minimal or there would be			requiring extensive	
Resources:		beneficial effects on the site or habitat		D Forester (LEI), in	corrective actions will	
Federally		conditions. Refer to complete resource		coordination with Forest	be notified to the RCD	
listed, State	gged for avoidance	protection measure language.	ring implementation	Service Botanist	immediately.	D
listed, and		e approved botanist or RCD Forester shall	~ ~ ·			
Forest		review all white bark pine occurrences and				
Service		document post-implementation				
sensitive	st-implementation	status/damage to trees during	days following			D and ENF Forest
plant species	reporting	implementation.	implementation	D Forester (LEI)	morandum Report	Botanist
		own cultural resources and Tribal Cultural				
		Resources (TCRs) shall be flagged by a				
		Professional Archaeologist as an				
		environmentally sensitive area prior to				
		implementation. Refer to Appendix A for				
		complete resource protection measure		ltural Resource Specialist	bmit GIS data/mapping	D and ENF Heritage
	gged for avoidance	language.	or to implementation	(Solano (SAS))	with data collected	Specialist
					nfirmed flagging and	D
					violations will be	
					documented in Field	
					Form and included in	
					weekly operations e-	
					mail. Major violations	
					requiring extensive	
lturally					corrective actions will	
Sensitive	oid impacts to	operations within the perimeter of the		ntractor, RCD Forester	be notified to the RCD	
Resources	cultural resources	flagged areas will occur.	ring implementation	(LEI)	immediately.	
	ntractor Best				uipment inspections will	
	Management	e Contractor shall implement BMPs to avoid	or to and during	ntractor, RCD Forester	be reported in weekly	
vasive Plants	Practices (BMPs)	spread of invasive species.	implementation	(LEI)	operations e-mail.	D
oarian Areas	rvey for riparian	RCD Forester shall survey for streams and	or to and during	D Forester (LEI)	bmit GIS data/mapping	D
	areas	riparian vegetation. Watercourse and Lake	implementation	()	with data collected	

ble 1. Summary of Resource Protection Measures, Monitoring and Reporting Requirements

Report Review	
Responsible Party	tes
D and ENF Forest Botanist	rvey data submitted to Forest Botanist on 6/9/2022. tection zones have been included on Contractor maps.
D	lude avoidance measure in Contractor documents
D	lude avoidance measure in Contractor documents.
D and ENF Forest Botanist D and ENF Heritage	S conducted surveys of the Sierra at Tahoe Special Use permit area on 6/20/2022 – 6/24/2022. Cultural sites were flagged. rvey data with a preliminary report, site locations, survey coverage, and DPR Forms were submitted to the ENF Heritage Specialists on 6/29/2022 and to the RCD on 6/30/2022.
Specialist	ltural site data is confidential information.
D	
	lude avoidance measure in Contractor documents.
D	lude measure in Contractor documents
Π	tial data included in Contractor map. Subsequent
D	data revisions will be provided as collected.

			1	1		
		Protection Zones (WLPZ) as required by the Forest Practice Regulations will be identified for each feature. The zone of protection shall be clearly identified on the ground with paint, flagging, or other suitable means, prior to the start of work.				
	gged for avoidance	equipment operations will be permitted within the WLPZ. No drafting of water from natural watercourses is permitted.	or to and during implementation	ntractor, RCD Forester (LEI)	nfirmed flagging and violations will be documented in Field Form and included in weekly operations e- mail. Major violations requiring extensive corrective actions will be notified to the RCD immediately.	D
	st-implementation reporting	rrections to watercourses damaged during implementation will be confirmed by the Supervising RCD Forester.	llowing implementation.	ntractor, RCD Forester (LEI)	1P Report	D
	ope and saturation operating	equipment operations will be permitted on slopes greater than 50% or lesser slopes if the erosion hazard rating is high or extreme unless approved by the Supervising RCD Forester. equipment operations will be permitted on slopes of 50% or greater if the slope is continuous to a watercourse unless approved by the Supervising RCD Forester. equipment operations are permitted on saturated soils, as determined by the Supervising RCD Forester. ter breaks will be installed at spacing prescribed by the Forest Practice Rules on any areas that are compacted due to equipment operations. e Contractor is required to remove processed material from roadside ditches where it impedes flow or any water conveyance		ntractor, RCD Forester	IP agreements and violations will be documented in Field Form and included in weekly operations e- mail. Major violations requiring extensive corrective actions will be notified to the RCD	
il and Erosion	limitations	systems.	ring implementation	(LEI)	immediately.	D

lude measure in Contractor documents	
lude measure in Contractor documents	

Task 4c: Education and Outreach.

We plan on conducting outreach and educational events to inform county residents and others about the project. The District plans to use the project as a model for educating the general public, agencies and others about reforestation procedures. Towards that aim, presentation materials will be prepared for use at workshops for agencies and interested parties organized by UC Cooperative Extension, Northern California Society of American Foresters and other partners.

The RCD has undergone a series of meeting and conducted several community meetings. In summary these include:

- 7) EFRT monthly meetings.
- 8) Grizzly Flat Community Meetings.
- 9) Pollock Pines Fire Safe Council meeting: 1.10.22
- 10) State and Private Forestry: 3.18.22
- 11) El Dorado County Board of Supervisors: 11.2.21
- 12) Western Cohesive Strategy Meeting: 6.21.22
- 13) El Dorado County Fair Booth: 9.15.22
- 14) 1133 individual private landowner communications



Task 5: Competition Control and Release

Depending on the outcomes of the stocking surveys and assessment of management needs, we may take steps to manage competing vegetation. The choice of methods used for competition control will be determined in consultation with the landowners. Either or both manual and chemical methods may be used. This is identified as an optional cost item in our budget proposal. It may actually be a basis for seeking additional funding from NRCS or CAL FIRE after project completion. No progress to date.