



Request for Proposals for the 2025 Lodge Road Wildfire Resilience Demonstration Project, Big Basin Redwoods State Park

December 2024

INTRODUCTION

In collaboration with the Santa Cruz District of California State Parks (State Parks) and Auten Resources Consulting (ARC), Save the Redwoods League (League) is seeking proposals for services to conduct mechanical fuels reduction operations in the Lodge Road area of Big Basin Redwoods State Park in Santa Cruz County, California. The project consists of 35 acres of mechanical fuel removal with operations commencing on or after April 1, 2025, and expected completion by June 30, 2025. Competitive proposals will assure high quality and timely work, transparency in practices and accounting, employ local labor where possible, and demonstrate commitment to long-term stewardship. The focus of this work is a small demonstration project with the potential to expand if performance is acceptable and subject to availability of funds.

PROJECT SITE LOCATION

The Lodge Road Wildfire Resilience Demonstration Project is located in Big Basin Redwoods State Park (BBRSP) in Santa Cruz County, California. The site is accessible via a paved roadway from Highway 236 approximately 8 miles west of the town of Boulder Creek, CA.

PROJECT DESCRIPTION AND OVERVIEW

The 2020 CSU Lightning Complex Fire (CZU Fire) burned approximately 86,500 acres in Santa Cruz and San Mateo Counties, including 24,230 acres in Big Basin Redwoods State Park, Año Nuevo State Park, and Butano State Park. This fire left behind variable post-fire conditions and set the stage for conversations about active forest management and forest resilience in a changing climate. State Parks, ARC and the League developed a forest management strategy (FMS) that describes the current condition of the three state parks described above and a suite of ecologically restorative treatments to improve ecosystem health and long-term wildfire resilience. This FMS was completed in August 2024 and identifies ~2,000 acres of priorities treatments across the three parks, integrated with ~12,000 acres of prescribed fire treatments.

The 35-acre Lodge Road Wildfire Resilience Demonstration Project was identified as a first pilot project to demonstrate the effectiveness of mechanical treatments as identified in the FMS due to its accessibility and visibility. The project consists of two areas with slightly different prescriptions, Redwood Unit A (24.4 acres) and Redwood Unit B (10.3 acres).

OVERVIEW OF CONTRACT STRUCTURE

The RFP requests prospective contractor to submit bid expenses for specified tasks on a cost per acre, loading cost per load, and hauling cost at an hourly bid rate. All expenses including mobilization and any other expense associated with performing the task to specifications must be included in the bid rate specified.

CONTRACTOR AND PROPOSAL REQUIREMENTS

1. Provide bid expense for each specified task on the Bid Form **(EXHIBIT D)**
2. Statement of management approach (including description of ability to meet schedule and deliverables), proposed work plan and schedule, description of ability to meet all schedule deadlines and deliverables. **(EXHIBIT E)**
3. Qualifications and Capacity **(EXHIBIT E)**
 - a. Licensing
 - b. Amount of existing commercial and general liability insurance coverage
 - c. Description of equipment owned or proposed to be used for services for the project
4. Proposed subcontractors and additional expertise **(Exhibit E)**
5. Relevant project examples and references (include phone contact details) **(EXHIBIT F)**

CONTRACTOR SELECTION

The proposals meeting the minimum qualifications set forth above will be evaluated. All relevant criteria including the following will be used to make the final selection:

- Demonstrated experience in delivering high-quality work that will achieve the project's ecological goals.
- Demonstrated experience meeting project timeline and schedule of operations.
- Demonstrated experience providing restoration services in an efficient and cost-effective way.
- Adequate project equipment, desired proposed methodology, and rates provided.
- Favorable reference checks

The contractor selected will be provided with a draft contract for review and timeline for contract finalization prior to March 1, 2025.

TIMING OF SELECTION PROCESS

December 18, 2024	Official distribution of Lodge Road RFP
January 10, 2025	Initial field tour for potential contractors
January 24, 2025	Proposals submitted to Ben Blom (bblom@savetheredwoods.org) and Shelby Kranich (shelbykranich@arcforestry.com)
January 31, 2025	Contractor selected and notified

April 1, 2025

Proposed commencement of operations

POINTS OF CONTACT

Save the Redwoods League, Ben Blom, Director of Stewardship and Restoration, (831) 582
2210, bblom@savetheredwoods.org

Auten Resources Consulting, Shelby Kranich, Registered Professional Forester, (831) 247-1062,
shelbykranich@arcforestry.com

ATTACHMENTS

Exhibit A: Scope of Work

Exhibit B: Project Area Map

Exhibit C: Additional Contract Provisions

Exhibit D: Bid Form

Exhibit E: Statement of Management Approach Template

Exhibit F: References Template

EXHIBIT A
LODGE ROAD DEMONSTRATION PROJECT, 2024-25
SCOPE OF WORK

1. Project Overview:

- (a)** Contractor shall perform the Work in strict accordance with all plans, specifications, permits, and any Contract Documents.
- (b)** Contractor shall furnish all necessary management, supervision, labor, materials, tools, supplies, equipment, plant, services, engineering, testing and/or any other act or thing required to diligently and fully perform and complete the Work.
- (c) Period of Performance:** Contractor will work with the League Contract Manager to schedule a start date and Work schedule. Work shall continue until the units are finished, weather conditions prohibit operations, or until, 2025; as determined by the League.
- (d) Notice to Proceed:** The League shall provide a minimum of five (5) calendar days notification prior to issuing a notice to proceed. For the avoidance of doubt, a “notice to proceed” is the date that the League authorizes the Contractor to begin the Work and Contractor shall commence the Work on or before five (5) calendar days after receipt of the notice to proceed. Implementation of this Project may be phased in coordination with other Project implementation partners.
- (e) Scope of Work** specifics are described below. All Work will take place within the treatment areas identified in Project Maps (Exhibit B).

2. Redwood Unit A (24.4 acres)

- (a)** Unless flagged for retention, fell all dead hardwoods within 50 feet of:
 - (i)** Redwood groves or any single redwood tree greater than 24” dbh
 - (ii)** Road infrastructure
 - (iii)** Live hardwoods greater than 20” dbh
- (b)** Masticate understory per the following specifications and guidelines in Tasks 4-6:
 - (i)** Masticate understory vegetation or shrubs not identified for retention, such as Ceanothus spp.
 - (ii)** Masticate live and dead trees less than or equal to (\leq) 12 inches Diameter at Breast Height (DBH) and woody understory vegetation within the project area

unless marked for retention (orange flagging) or otherwise indicated by State Parks or their supervised designees.

1. Contractor shall maintain any live naturally occurring Quercus species, maples and buckeyes greater than 12 inches DBH. Additional trees less than 12 inches DBH may be identified for retention at the discretion of the State Parks.
2. In the absence of trees greater than (>) 12 inches DBH, leaving gaps without trees is acceptable to encourage a mosaic of vegetation types. Individually spaced live trees may be retained outside of the dripline of overstory trees. The space between retained live trees less than 12 inches in diameter should be ~10-20 feet.
3. State Parks or their supervised designee reserve the right to reasonably adjust tree treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.
4. All treatments will adhere to the Understory Biomass Disposal requirements listed below.

- (c) Selectively fell redwood trees between approximately 12 and 24" dbh. Harvest first within areas that have been sample marked by State Parks staff and contractors.
- (d) Fell dead redwoods trees greater than 12" dbh within 50 feet of the road.
- (e) Redwoods greater than 12" in diameter will be transferred to designated landings. Redwood logs will be shipped to a processing facility.

3. Redwood Unit B (10.3 acres)

- (a) Unless flagged for retention, fell all dead hardwoods within 50 feet of:
 - (i) Redwood groves or any single redwood tree greater than 24" dbh
 - (ii) Road infrastructure
 - (iii) Live hardwoods greater than 20" dbh
- (b) Crush understory vegetation using tracked equipment with the blade up per the following specifications and the guidelines described in Tasks 4-6:
 - (i) Crush understory vegetation or shrubs not identified for retention, such as Ceanothus spp.
- (c) Fell all redwood trees less than or equal to 24" dbh.

- (d) Fell dead redwood trees greater than 12" dbh within 50 feet of the road
- (e) Redwoods greater than 12" in diameter will be transferred to designated landings. Redwood logs will be shipped to a processing facility.

4. Understory Vegetation and Shrub Treatments Specifications (across all areas)

- (a) Residual material (i.e. masticated or crushed material) shall be dispersed throughout the project area in a mosaic pattern, at variable depths, concentrating residual material in areas of equipment disturbance. To the extent feasible, minimize residual material in forest gaps or openings where increased biodiversity of herbaceous understory regeneration is more likely. In general, residual material depths should average 3" and should not exceed a depth of approximately 6".
- (b) Residual masticated material or slash shall not be piled at the base of remaining trees or sensitive vegetation.
- (c) Contractor shall not masticate or crush, or remove through handwork, hydrophytic riparian species including, but not limited to, chain fern (woodwardia), Carex sp., rushes, blue elderberry, red elderberry, and dogwood. Damage to this live residual understory vegetation shall be minimized to the greatest extent feasible.
- (d) Residual masticated material shall not obstruct water flow in drainage features such as ditches and culverts. Such material shall be removed by the contractor prior to a forecasted 30% precipitation event or upon completion of operations, whichever occurs first.
- (e) State Parks or their supervised designee reserve the right to reasonably adjust understory vegetation and shrub treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.
- (f) All treatments will adhere to the Understory Biomass Disposal requirements listed below.

5. Tree Pruning Treatments

- (a) Retained live trees greater than (>) 12 inches DBH will be pruned (live and dead limbs) up to a maximum height of 10 feet with the following exceptions:
 - (i) Limbs overhanging infrastructure and roads will be pruned to 15 feet.
 - (ii) No pruning will be done to a height greater than 33% of the trees existing live crown.
 - (iii) Pruning cuts shall retain the branch collar to allow the tree to compartmentalize the wound.

- (b)** Tree limbs may be pruned with a masticator but pruned ends shall have a smooth appearance with no frayed material visible. Note: This may require follow-up handwork.
- (c)** State Parks or their supervised designee reserve the right to reasonably adjust tree pruning treatments in areas where additional sensitive resources are identified and may adjust the treatment prescription as needed.
- (d)** In areas that are solely burn unit preparation, pruning will only occur where necessary for equipment access. State Parks will follow with all pruning necessary to conduct prescribed burning.
- (e)** All treatments will adhere to the Understory Biomass Disposal requirements listed below.

6. Tree Treatments

- (a)** Contractors shall identify through mapping and/or flagging where mainline skid trails and landings will be utilized. These skid trails and decking locations shall be approved by State Parks or their supervised designee prior to use. Some landing locations and skid trails will be designated by State Parks, or their supervised designee, prior to operations.
- (b)** For trees where a feller buncher is not used for felling operations, Contractor shall use wedges and jacks as necessary to fall trees away from sensitive resources such as watercourses and to minimize residual damage to the remaining stand or other sensitive resources.
- (c)** Stumps will be cut no more than 6 inches above the ground for trees up to 18 inches in diameter and stump heights for trees greater than 18 inches may be 12 inches above the ground. All stumps must be flat or parallel to the ground with a smooth appearance and no frayed material visible.
- (d)** Felled redwood trees greater than (>) 12 inches shall be removed and decked in areas specified by State Parks or their supervised designee, and treated as follows:
 - (i)** Removed trees greater than 12 inches DBH will be manufactured into logs for utilization:
 - 1.** Minimum log length is ten feet (10'). Log lengths shall be varied to secure the greatest utilization of merchantable material.
 - 2.** All trees shall be utilized to the smallest practical diameter on the top. Generally, that means to a minimum diameter of approximately six inches except where the log material is not merchantable because of the number or size of knots.
 - 3.** Logs containing less than one-fourth (1/4) sound material (cull logs) are not merchantable. They may be removed and placed back on the forest

floor. Defective logs shall be tested at twenty-foot (20') intervals to expose the degree of defect.

4. Log lengths must meet industry standards, 6 inches of trim for logs less than 20 feet and 1 foot of trim for logs greater than 20 feet.
5. Logs should generally be stacked in a safe and secure manner with deck heights approximately less than 10 feet for log decks expected to be left on site for a period of greater than 3 months.

(ii) Removed trees (non-redwood) greater than 12 inches DBH may be piled for pile burning (Hardwood Unit and portions of Unit A):

1. Material ~12-24" DBH may be bucked and piled for pile burning, until piles reach maximum size specifications, in which they should then be decked. Any tree greater than 24" should be decked.
2. Burn piles shall not exceed the maximum allowable size by CAL FIRE, which is 10'x10'. Contractor may be directed to construct smaller piles where conditions allow.
3. Piles shall be spaced in a manner that allows for safe ignition. State Parks will provide guidance on desired spacing for site-specific locations.
4. Piles should be located away from redwoods and downed logs.
5. An 8'x8' section of each pile shall be tarped with impermeable and durable material (such as plastic sheeting, craft paper will not be accepted) to ease ignition.
6. Contractor is not responsible for scratching a line around the burn piles.

(iii) Approximately one (1) to Four (4) logs greater than (>) 18 inches DBH, at minimum per acre, should be left on the forest floor where feasible. In some locations, one (1) to eight (8) logs left on the forest floor will be accepted.

1. Logs shall not be left within 10' of burn piles.
2. Logs shall be bucked to achieve ground contact.

(e) All woody material and slash generated from tree falling and removal operations shall be crushed, masticated, or lopped and scattered to a height no greater than 24 inches. Some hand lopping may be necessary to treat material within redwood clumps or where mechanical treatment methods are not possible.

7. Equipment Requirements

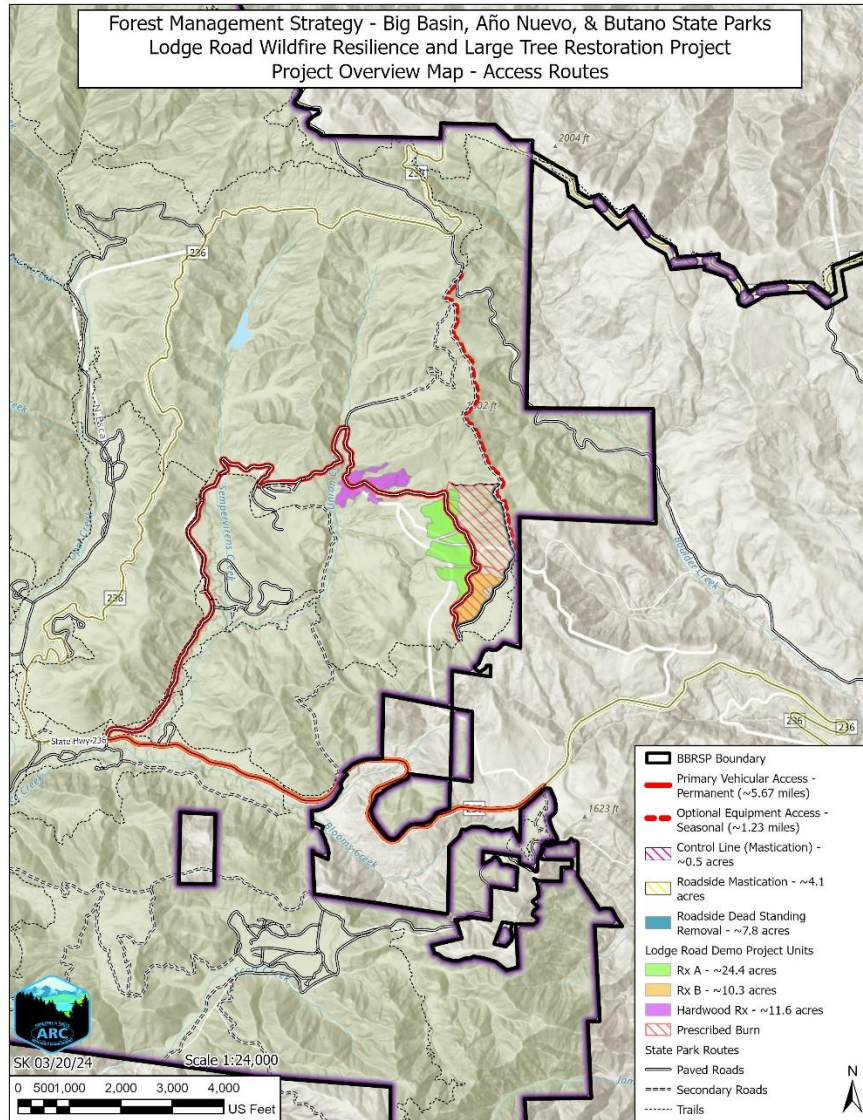
- (a) Feller buncher capable of felling trees up to 28 inches. It should be expected that some hand falling will be required.
- (b) Rubber tracked excavator with a boom mounted masticating head capable of masticating a minimum distance of 25 feet from the road edge.
- (c) Excavator capable of moving up to 40-foot logs in a decking area.
- (d) Metal tracked and/or skid-steer with masticator/mulching heads.
- (e) Feller buncher and tracked equipment should have capacity to operate on slopes up to 40%.
- (f) Rubber tracked excavator and/or skidder or skid-steer with forestry grapple and/or with articulating grapple implement with the ability to maneuver trees up to 40 feet long and ~40 inches DBH (accounts for large hazard trees).
- (g) A truck of appropriate size capable of moving large loads of logs up to 40 feet in length.
- (h) A truck of appropriate size capable of moving and dumping large loads of hardwoods up to 20 feet in length.
- (i) Other heavy equipment may be proposed for use by the Contractor during the competitive bid process and must be approved by State Parks or their supervised designee. To propose other heavy equipment, the Contractor should be prepared with equipment dimensions, weight, and photos of equipment.
 - (i) Contractors must have an appropriate piece of heavy equipment to construct waterbars on site, such as an appropriately sized tractor, excavator with a bucket, backhoe, or front-end loader with a hydraulically controlled box scraper on site a month prior and following the winter period (October 15th – May 1st), see the Waterbreak Section.

8. Hazard Tree Biomass Disposal

- (a) Where equipment cannot feasibly access to masticate woody debris, all material and slash generated from hazard tree falling and removal operations shall be lopped and scattered to a height no greater than 24 inches.
- (b) Trees damaged incidentally shall be processed following these same specifications. Permission from State Parks or their supervised designee is required for incidental damage to redwoods or true oaks.
- (c) State Parks or their supervised designee reserve the right to reasonably adjust biomass treatments if sensitive resources are identified and adjust the treatment prescription as necessary to provide adequate protections.

EXHIBIT B
Lodge Road Demonstration Project, 2025
PROJECT MAPS

Note that current project focuses only on RX Units A and B as displayed in these maps.



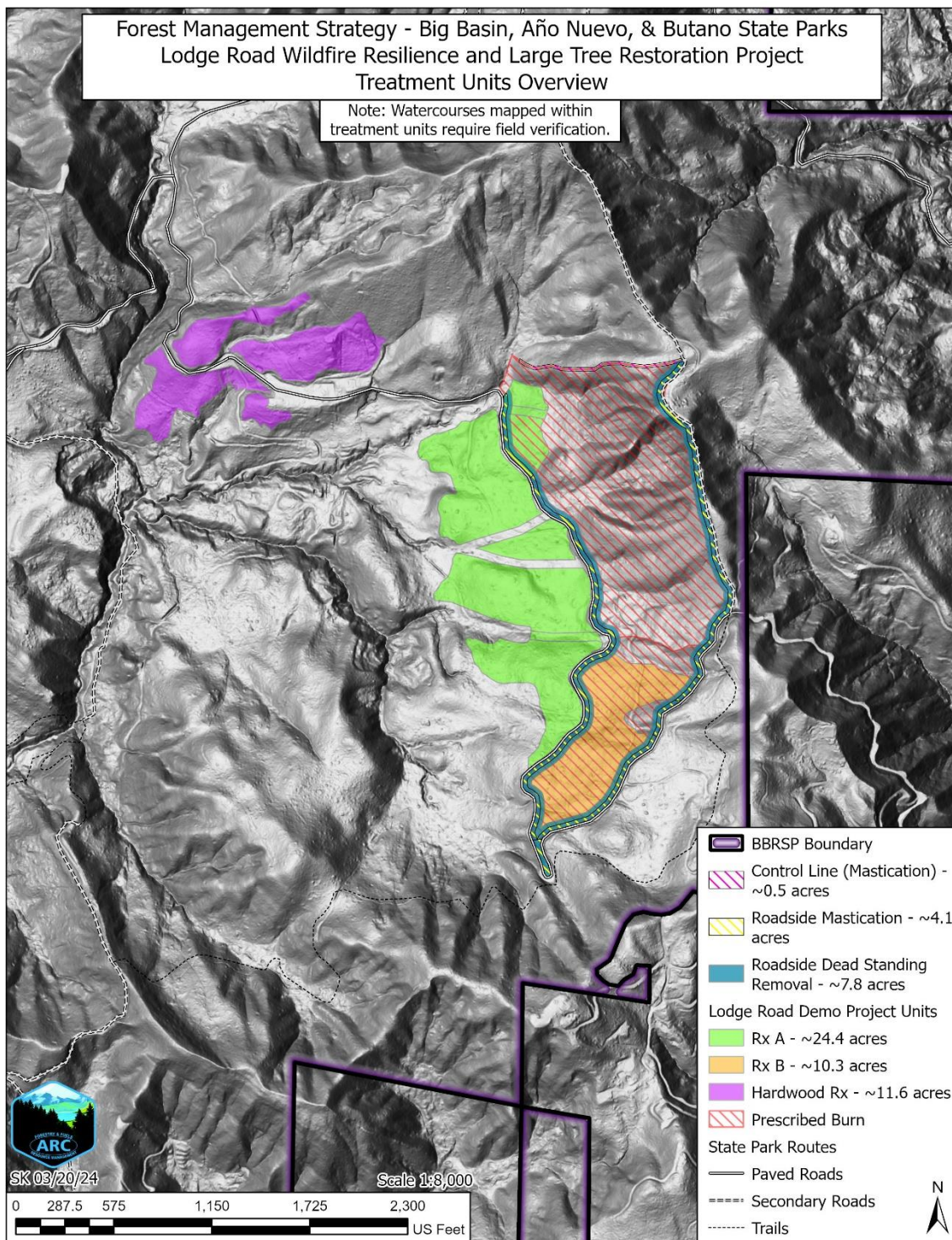


EXHIBIT C
Lodge Road Demonstration Project, 2025
ADDITIONAL PROVISIONS

The following specifications act as the requirements for the Contractor to operate safely and efficiently while protecting and conserving sensitive resources and protecting the property during the implementation of the *Treatment Unit Specifics* and *Technical Specifications*.

General Project Specifications (GENPS)

GENPS 1. Prior to beginning operations, State Parks and their supervised designee will conduct a pre-operational meeting to discuss project implementation, special protection measures and any potential operational constraints regarding the conduct of this contract that may impact project completion; including, but not limited to, planned start date, special protection measures, operational constraints, operating schedule, and order of project completion.

GENPS 2. State Parks or their supervised designee will mark an example treatment area for Contractor review at the pre-operational meeting.

GENPS 3. Contractors and all heavy equipment operators are required to utilize the Avenza application on phones or tablets capable of viewing PDF georeferenced operations maps provided by State Parks to identify the Contractors location, stay within project treatment areas or infrastructure approved for operational use, and avoid sensitive resource areas.

- a. There is a free version of the application available for download that allows up to 3 active maps to be stored and viewed per account/device.
- b. Training will also be provided to the Contractor on how to use the Avenza application.

GENPS 4. Contractor shall prepare and keep record of a daily checklist made available at the request of State Parks or their supervised designee that checks the following for daily operations which may include:

- a. Inspections around the equipment and staging area for any wildlife that may have decided to occupy the area.
- b. Inspections for any equipment leaks.
- c. Ensure all water tanks for fire suppression are full.
- d. Confirm that all wildlife surveys are completed for the treatment areas proposed for operations that day.
- e. Record wind speed and relative humidity measurements at the beginning of operations, 12:00 p.m. and at the conclusion of operations each day.

GENPS 5. A pre-designated Contractor foreman will be required to be on site at all times while the crew is working. The foreman must be able to address concerns from State Parks, their supervised designees, or interested public.

GENPS 6. The Contractor will ensure that a toilet and garbage disposal facilities are available for crews and are used in staging areas identified for operations.

GENPS 7. Special Treatment Zones and Equipment Exclusion Zones/Flagging and treatment

- a. Special Treatment Zones (STZ's); Areas flagged with orange/white striped labeled "Special Treatment Zone" will require consultation with State Parks or their designee before conducting any work in proximity to these zones.
- b. Equipment Exclusion Zones (EEZ's); Areas flagged with pink glo and black striped flagging restricts heavy equipment from entering these zones except at designated sites flagged to cross a watercourse represented by a strip of white flagging and a strip of pink flagging placed together.

GENPS 8. The Contractor shall remove all cans, bottles, fuel drums, broken equipment and other non-forest debris resulting from treatment operations from the project area upon completion or cessation of treatment.

General Provisions for Heavy Equipment (HVEEQ)

HVEEQ 1. Heavy equipment shall not operate:

- a. In any Watercourse and Lake Protection Zones (WLPZ) ([WTCRS 1-5](#)), Special Treatment Zone (STZ), or Equipment Exclusion Zone (EEZ);
- b. On unstable areas, as identified and flagged by the State Parks or their supervised designee;
- c. On any paved or chip-sealed surface, with the exception that heavy equipment with rubber tracks or excavators with street pads may operate on such surfaces, or the use of mats or plywood may facilitate equipment access on such surfaces;
- i. Contractor is expected to use the greatest care possible along paved roads and the roads shall be left passable by passenger vehicle at the end of each day.
- ii. The contractor shall be responsible for watering ([TRFFC 4](#)), installing waterbars ([WTBRK 1-6](#)), and grading dirt or rocked roads that have been impacted by the contractor's actions. Such roads shall be returned to their preoperational original condition to the extent feasible.
- iii. Heavy equipment operation shall cease if the activity generates a significant amount of dust that impedes visibility.
- d. Heavy equipment operations shall cease per the rainfall shut down periods identified:

Rainfall Amount in Past 24-hrs	Days Mechanized Operations Must Cease
0-0.2 inches	None
0.2-1.0 inches	24 hours
1.0-2.0 inches	48 hours
2.0+ inches	72 hours

- e. On saturated soils as defined in 14CCR §895.1 (shown here for reference):
“Saturated Soil Conditions means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during Mechanized Equipment Operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.”
- f. Outside of the project boundary;
- g. In any other area identified for heavy equipment exclusion on the attached project map or flagged in the treatment area.

HVYEQ 2. Minimize Area of Disturbance and Site Maintenance

- a. Care shall be taken to avoid damaging leave trees. It is acceptable for some areas to remain untreated if treatment is likely to result in excessive damage to leave trees. Areas where this action is proposed must be authorized by State Parks or their supervised designee.
- b. Areas of disturbance will be limited to the smallest footprint necessary and a single access pathway, where feasible. For maintenance activities near waterways or other sensitive habitat, the designated work area shall be clearly identified in the field using highly visible material, and work will not be conducted outside this area.
- c. During operations, road running surfaces in the work area shall be treated as necessary to prevent excessive loss of road surface materials including watering to keep down excessive dust.

HVYEQ 3. Main line access trails shall be flagged in each unit for ingress and egress into any unit to reduce disturbance from the staging area. Contractors will be required to install waterbreaks on these main line trails following operations or prior to the winter period ([WTBRK 1-6](#)).

HVYEQ 4. Access

- a. Access, staging, decking, skid trails, and parking areas will be located outside of Watercourse and Lake Protections Zones, Class III Equipment Limitations Zones, and other sensitive areas identified by State Parks or their Supervised designees.

- b. Staging areas will be located at least 30 feet from the equipment exclusion zone buffer, or as far as feasibly possible ([WTCRS 1](#)).

HVYEQ 5. Leaking equipment shall not be allowed into the project area. If, during the course of operations, a fuel or hydraulic fluid leak is discovered, the machine shall stop, and the leak shall be contained and fixed immediately. Operations with that equipment shall not resume until the leak has been fixed. The contractor shall remove and dispose of any contaminated soil. State Parks or their supervised designee shall be notified immediately.

HVYEQ 6. Spill Prevention and Control

- a. Keep spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- b. Inspect vehicles and equipment frequently for and repair leaks promptly. State Parks or their supervised designee should inspect beneath all vehicles that have been parked more than 15 minutes before they leave the work area. Use drip pans to catch leaks until repairs are made.
- c. Clean up spills or leaks immediately and dispose of cleanup materials properly.
- d. Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- e. Sweep up spilled dry materials immediately. Do not try to wash them away with water or bury them. If water must be used, the Contractor shall collect the water and spilled fluids and dispose of it as hazardous waste.
- f. Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- g. Small spills (less than 18 inches in diameter) including small quantities of oil, gasoline, paint, or other materials should be controlled by the first responder (maintenance staff) and do not necessarily require an emergency response team. Medium spills (greater than 18 inches but less than 6 feet in diameter) are typically controlled by the first responder (maintenance staff) but police or fire department HAZMAT teams may be called based on conditions. Report significant spills (larger than 6 feet in diameter and any “running” spill) immediately.
 - a. Contractors are required by law to report all significant releases of hazardous materials, including oil. To report a spill, contact the Santa Cruz County Environmental Health, or other emergency office (e.g., local fire or police department) as warranted, immediately and document the spill using the spill documentation form. Alternatively, 1) dial 911, the local emergency response number, 2) the National Response Center at (800) 424-8802; or 2) call the Governor’s Office of Emergency Services Warning Center, (800) 852-7550 (24 hours). As appropriate, contact other agencies including California Occupational Safety and Health Administration or the Regional Water Quality Control Board. All chemical spills shall be reported as soon as possible to State Parks or their supervised designee.

General Provision for Vehicles and Equipment (VCLEQ)

VCLEQ 1. Vehicle Maintenance and Parking

- a. Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- b. Perform major maintenance, repair jobs, and vehicle equipment washing off site, or use drip pan to collect spills.
- c. If refueling or vehicle maintenance must be done on-site, work in a in a bermed area (e.g., sandbags, gravel bags, compost socks, or other barrier material) at least 150 feet away from creek channels, away from storm drains and over a drip pan big enough to collect fluids.
- d. Keep an ample supply of spill clean-up materials near fueling vehicle maintenance and hazardous materials/hazardous waste storage areas. Inventory clean-up materials monthly and restock as needed.
- e. Post proper fueling and spill clean-up instructions at fueling areas. Never leave the area while equipment is being filled.
- f. Recycle or dispose of fluids as hazardous waste.
- g. Do not clean vehicle or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.
- h. Perform vehicle and mobile equipment steam cleaning, pressure washing or degreasing only over a containment designed to collect any generated wash water. Collect wash water and discharge to sewer via an oil water separator. Do not pour wash water down storm drains or sewers connected to septic systems.

VCLEQ 2. Equipment Maintenance and Fueling

- a. A separate area should be designated for equipment maintenance and fueling, away from any slopes, watercourses, or drainage facilities.
- b. Equipment should not be stored in areas that will potentially drain to watercourses or drainage facilities. If equipment must be stored in areas with the potential to generate runoff, drip pans, berms, gravel bags, or absorbent booms should be employed to contain any leaks or spills.
- c. Equipment should be inspected daily for leaks or damage and promptly repaired.
- d. Fueling and maintenance of vehicles should take place at least 65 feet away from waterways.
- e. In the event of a spill, follow procedures outlined in [HVEQ 6](#).

Traffic Control and Operations (TRFFC)

TRFFC 1. Timing of Work

- a. In general, routine maintenance and construction activities that take place in sensitive habitat and/or in channels below ordinary high water will be conducted during the dry season (May 1 through October 15). Maintenance activities that are in upland areas and that would not affect streams may occur during low rainfall years at times when there is no predicted rainfall (chance of precipitation is less than 30 percent chance of rain).
- b. **Operations from October 15th – May 1st:** For operations between October 15th to May 1st ([WNTOP 1](#)).
- c. Operations may occur from 8:00 a.m. to 5:30 p.m., Monday through Friday and not on legally designated holidays. When no use of a public roadway is needed to move heavy equipment, or the project area is not proximal to homes as determined by State Parks or their supervised designees, then hours may be extended from 7:00 a.m. to 6:00 p.m.

TRFFC 2. Maintain Traffic Flow

- a. To the extent feasible, work shall be staged and conducted in a manner that maintains two-way traffic flow on roadways in the vicinity of the work site.
- b. Heavy equipment and haul traffic shall be prohibited in residential areas to the greatest extent feasible. When no other route to and from the site is available, heavy equipment and haul traffic through residential areas shall be restricted to the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday.
- c. The Contractor is responsible for assessing treatment areas to determine where traffic control may be needed. Treated material of any kind should be cleaned up immediately if it contacts the roadway.

TRFFC 3. Traffic Control and Public Safety

- a. In the event that work activities require the temporary closure of any traffic lanes, the Contractor shall implement measures to guide traffic (such as signage and flaggers), safeguard construction workers, provide safe passage of vehicles, and minimize traffic impacts through the duration of work activities.
- b. For any other work within or near a roadway or trail that could pose a hazard to the public, the Contractor shall install/implement appropriate measures, such as fences, barriers, flagging, guards, and/or signs, to give adequate warning and provide protection from the potentially dangerous condition.
- c. Contractor should operate vehicles at appropriate speeds within the State Park boundaries:
 - i. 20 mph maximum
 - ii. 5 mph when passing pedestrians or bicycles

TRFFC 4. Dust Management Controls

- a. The Contractor will implement the Monterey Bay Air Resources District (MBARD) Basic Dust Control Measures. Current measures stipulated by the MBARD Guidelines include the following:
 - i. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
 - ii. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
 - iii. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

Fire Safety (FIRSF)

FIRSF 1. State Parks restricts activities that can be performed in the project area during the fire season. CAL FIRE typically announces the start of the Fire Season in May of each year and usually doesn't end the season until November, depending on weather and fuel conditions. This section applies to work occurring during the declared Fire Season or Red Flag conditions. It is the responsibility of the Contractor to follow these requirements and to contact state parks or their supervised designee. General Fire Season Requirements:

- a. Emergency Notification: Contractors shall maintain at least one working cell phone, radio, or satellite phone capable of communicating in case of an emergency, such as medical or fire incident. In an emergency, call 911 then notify State Parks or their supervised designee.
- b. Vehicle use: Contractor must remain on improved roads when driving between work sites. No cross-country or off-road driving is permitted. All vehicles must be parked on paved or dirt improved areas near the work site to minimize igniting grass. This also pertains to UTV and ATV use.
 - i. Each vehicle or piece of heavy equipment shall be outfitted with a minimum 5 lb. Class ABC fire extinguisher, and/or a 2.5-gallon air pressurized gallon Class A water fire extinguisher, and/or a 5-gallon backpack pump physically attached to the heavy equipment or truck in an accessible location to respond to any possible ignitions. Heavy Equipment with foam fire suppressions system built in meet this requirement.

- c. Spark Arrestors: Spark arresters affixed to the exhaust system of engines or vehicles shall not be mounted in a manner as to allow flames or heat from exhaust system to ignite any flammable material.
 - i. Spark arrestors are required for all mechanized tools.
 - d. Fueling Equipment: When fueling equipment, have fuel geyser awareness and allow it to cool in an area where there is no flammable vegetation that can be ignited by the hot exhaust, preferably in a dirt or paved area.
 - e. Equipment Requirements mobile/on-site: Provide at least one serviceable round-point shovel, McCleod, or similar scraping tool with an overall length of not less than 46 inches, one five-gallon water fire extinguisher or backpack pump, and a weather sampling device. Unless otherwise noted, The Contractor shall provide and maintain a fire pump with a minimum of 350 gallons of water and a 1-inch hose line in the immediate work area. The hose line must be a minimum of 50 feet in length with an adjustable combination nozzle that can provide a fog pattern and straight stream capability of 50 gallons per minute. SEE FIRSF 6 and FIRSF 7.
 - i. Contractor may propose an alternative method that meets or exceeds these standards.
 - ii. Tree cutting crews are required to carry one fire extinguisher per chainsaw.
 - f. Applicable laws and Regulations: California Public Resource Code Sections 4442 & 4443 Spark arrester & muffler requirements; 4427 Clearance & equipment requirements. California Health and Safety Code Sections 13001 Causing Fire; 13005 Use of Hydrocarbon Engine without Exhaust Spark Arrester; 13007 & 13009 liability.
 - g. No smoking is permitted within the project area.
- FIRSF 2. During Fire Season, operations conducted within or adjacent to grass, brush or forest areas will be conducted using the following rules.
- a. Prior to Commencement of Operations: Contractor will secure the current fire conditions from the San Mateo/Santa Cruz CAL FIRE unit.
- FIRSF 3. No operations shall occur within 24 hours preceding a predicted Red Flag Day or on a Red Flag Day as determined by Cal Fire. Once a Red Flag has been lifted, work can resume following these guidelines:
- a. Contractor will assess current weather conditions at the planned site of operations every two hours.
 - b. In the event one of the following readings are noted, Operations shall not begin, or will cease immediately:
 - i. The relative humidity is at or below 20%

- ii. Sustained wind speeds reach 10 MPH
 - iii. If ambient temperature reaches 80 degrees Fahrenheit at any time during the operations, weather samples must be taken hourly.
 - c. For purpose of this document, "Fire Season" is defined as the period of the year, which may change from year to year, during which wildfires are likely to occur, spread, and do sufficient damage to warrant organized fire control measures as declared by Cal Fire.
- FIRSF 4. Extra Protection Fire Safety Measures for High-Risk Activities: No High-Risk Activity or other activity potentially creating a fire hazard, is allowed within or adjacent to grass, brush or forest covered areas at any time during the fire season unless these additional guidelines are followed.
- a. High Risk Activities include the following: Flailing, Welding, Cutting, Grinding, Mowing, Disking, Operating Brush Hog Equipment and Grading in heavy brush areas. (Heavy brush areas are those where bare mineral soil is not visible).
 - b. Active fire monitoring during welding, cutting or grinding operations: Contractor is required to provide active fire monitoring, which minimally consists of a non-divertible fire pump with a minimum of 350 gallons of water and a 1-inch hose line in the immediate work area. The hose line must be a minimum of 50 feet in length with an adjustable combination nozzle that can provide a fog pattern and straight stream capability of 50 gallons per minute.
 - c. Wetting area during cutting, grinding or welding: Contractor must adequately wet the work area with water utilizing a water truck or equivalent portable water source to eliminate potential fire ignition. Contractor must also monitor the area for drying conditions, apply additional water as necessary and monitor work area for any signs of fire ignition following High Risk Activity operations.
 - d. Fire clearance during cutting, grinding or welding: Contractor must provide a minimum of 20 feet of fire clearance around each welding area with a fireproof barrier and/or clearing down to bare soil.
 - e. Active fire watch during mowing or grading operations: Contractor shall provide active fire patrol following behind the mower or ground engaging equipment (grader, dozer, etc.), which minimally consists of a non-divertible pickup truck equipped with a fire pump with a minimum of 350 gallons of water with a 1-inch hose line, staffed with at least one person in the pickup truck. The hose line must be a minimum of 100 feet in length with an adjustable combination nozzle that can provide a fog pattern and straight stream capability of 50 gallons per minute.
 - i. In areas not accessible by pick up, an Immediate Fire Suppression Station (IFSS) operations that includes five-gallon backpack pump, Mcleod hand tool, and shovel shall be strategically staged within 100 feet of any mastication or chipping operations for ground crew or spotters to immediately extinguish any ignition.
 - ii. Treatment areas shall be walked prior to operations to determine if there are any potential ignition hazards such as rocks, metal objects, or fuel sources that could act as possible ignition points. The Contractor should adjust operational

schedules to operate in these areas when fire hazard risks are the lowest, such as early morning.

- iii. Work areas shall be walked at the end of each day to conduct a fire check unless operating in the winter period and conditions are too wet for an ignition to occur.
- iv. During times when vegetation is flammable, a minimum of 2-hour fire watches each day following conclusion of mechanized operations. Fire watch may include time spent conducting routine end-of-day equipment maintenance.
- v. Fire patrol shall be required on site during and at least 3 hours after operations when the relative humidity is at or below 20% and/or when winds are at or above 15 mph at the end of the day in the work area.
 - 1. Contractor shall have a Kestrel to monitor wind and relative humidity and shall take readings at the beginning of operations, 12:00 p.m., and at the conclusion of operations each day. Contractor shall maintain a record of readings as part of the daily operational checklist.

FIRSF 5. National Weather Service Red Flag Warning: NO work within or adjacent to grass, bush or forest covered areas shall occur within 24 hours of a predicted Red Flag Event or during a Red Flag Event as determined by the National Weather Service (<https://www.weather.gov>).

FIRSF 6. During Non-Fire Season, operations conducted within or adjacent to grass, brush or forest areas will be conducted using the following rules:

- a. Prior to Commencement of Operations:
 - i. Weather samples will be taken at the job site.
 - 1. If relative humidity is > 20% operations can proceed without further weather monitoring or other firefighting devices.
 - 2. If relative humidity reading is < 20% the preceding operational rules for fire season will be followed.
 - 3. If relative humidity drops below 20% and sustained winds exceed 10 MPH, operations will cease.
- b. For purposes of this document, "Non-Fire Season Risk Period" is defined as the following:
 - i. Anytime of the year, when weather monitoring indicates that relative humidity is less than 20%. All procedural guidelines contained in this document will be followed during non-fire season anytime relative humidity is less than 20%

FIRSF 7. The Contractor will have fire tools available on-site during operations for firefighting purposes per PRC 4428:

- a. No person, except any member of an emergency crew or except the driver or owner of any service vehicle owned or operated by or for, or operated under contract with, a publicly or privately owned utility, which is used in the construction, operation, removal, or repair of the property or facilities of such utility when engaged in emergency operations, shall use or operate any vehicle, machine, tool or equipment powered by an internal combustion engine operated on hydrocarbon fuels, in any industrial operation

located on or near any forest, brush, or grass-covered land between April 1st and December 1st of any year, or at any other time when ground litter and vegetation will sustain combustion permitting the spread of fire, without providing and maintaining, for firefighting purposes only, suitable and serviceable tools in the amounts, manner and location prescribed in this section.

- b. On any such operation a sealed box of tools shall be located within the operating area, at a point accessible in the event of fire. This fire toolbox shall contain: one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and a sufficient number of shovels so that each employee at the operation can be equipped to fight fire.
- c. One or more serviceable chainsaws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area, or, in the alternative, a full set of timber-felling tools shall be located in the fire toolbox, including one crosscut falling saw six feet in length, one double-bit axe with a 36-inch handle, one sledge hammer or maul with a head weight of six, or more, pounds and handle length of 32 inches, or more, and not less than two falling wedges.
- d. Each rail speeder and passenger vehicle, used on such operation shall be equipped with one shovel and one axe, and any other vehicle used on the operation shall be equipped with one shovel. Each tractor used in such operation shall be equipped with one shovel.
 - i. As used in this section:
 - a. "Vehicle" means a device by which any person or property may be propelled, moved, or drawn over any land surface, excepting a device moved by human power or used exclusively upon stationary rails or tracks.
 - b. "Passenger vehicle" means a vehicle which is self-propelled, and which is designed for carrying not more than 10 persons including the driver, and which is used or maintained for the transportation of persons but does not include any motortruck or truck tractor.

FIRSF 8. State Parks or their supervised designee, reserves the right to restrict operating hours or operations during red flag days or during critical fire weather.

Road Protection (RDPRO)

RDPRO 1. During operations, all roads shall be monitored and treated to provide passage and prevent the excessive loss of road surface materials by methods including, but not limited to, rocking, watering, placing temporary trench plates, paving, installing waterbars or fixing waterbar outflows ([WTBRK](#)), or installing commercial erosion control devices to manufacturer's specifications. State Parks or their supervised designee reserves the right to identify specific locations where treatment will be required and discuss the most appropriate options for

treatment of a section of road, skid trail, or landing based on the level of disturbance with the contractor.

RDPRO 2. Transportation to treatment areas will be on publicly maintained and paved roads. Contractor is expected to use the greatest care possible along paved roads and the roads shall be left passable by passenger vehicles at the end of each day.

RDPRO 3. Any appurtenant seasonal roads and staging areas shall be filmed ahead of active operations by State Parks or their supervised designee, and the Contractor shall be responsible for returning the roads and staging areas to an "as good or better" condition following operations. Seasonal roads shall be watered to minimize dust and damage where needed. Contractor will need to locate an appropriate water source for dust control operations. It is unknown at this time if State Parks will be able to provide this watersource.

RDPRO 4. Contractor is not responsible for damage to the permanent road within the project area unless negligent, including unavoidable damage that may occur during the course of work from tree operations, equipment passage and access, and clearing drainages, etc. Metal tracked equipment (except street tracks) should be walked along all portions of the permanent road with the utilization of protective material, such as mats, tires, or plywood. Road crossings will be designated between units for equipment to cross.

Ground Disturbing Activities within Treatment Areas (GROUND)

GROUND 1. Ground disturbance shall be minimized to the greatest extent feasible. Berms, ruts and other operator caused ground disturbance over 12 inches in height/depth shall be smoothed out to original contours before leaving the immediate work area.

GROUND 2. Equipment shall operate parallel to the slope (up and down the fall line) to the greatest extent feasible.

GROUND 3. Equipment shall not enter areas outside of the designated project areas unless authorized by the State Parks or their supervised designee.

GROUND 4. Upon completion of a treatment area the contractor shall ensure that roads are left open and passable by the public with respect to all possible road users.

Operations from October 15th – May 1st (WNTOP)

WNTOP 1. Heavy equipment operations may suspend due to forecasted precipitation events. Utilizing the National Weather Service, weather forecasts will be reviewed daily. Considerations for suspending heavy equipment operations will begin when NWS indicates a "chance" (30% or more) of precipitation within the next 24-hour period. State Parks will provide 12-hour notice when operations will be suspended.

- a. Saturated soil is defined as soil and/or surface material pore spaces that are filled with water to such an extent that runoff is likely to occur ([HVEQ1.f.i](#)). Indicators of saturated soil conditions may include but are not limited to:
 - i. areas of ponded water,
 - ii. pumping of fines from the soil or road surfacing material during operations,
 - iii. loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts,
 - iv. spinning or churning of wheels or tracks that produces a wet slurry, or
 - v. inadequate traction without blading wet soil or surfacing materials.
- b. In addition, operations on appurtenant roads or staging areas may only occur from a stable operating surface defined below:
 - i. A surface that can support vehicular traffic and that routes water off the road surface or into drainage facilities without concentrating flow in ruts (tire tracks), pumping of the roadbed, or ponding flow in depressions. A stable operating surface shall include paved roads, structurally sound road base, unsaturated hard packed seasonal roads, and all must be appropriate for intended use.

Watercourse Protections (WTCRS)

WTCRS 1. All Class III watercourse centerlines within proximity to where operations will occur shall have watercourse centerlines flagged in blue with pink and black striped equipment exclusion zone flagged to indicate an equipment limitation zone (ELZ) buffer. Handwork may occur within the ELZ zone if needed. See below for ELZ distances.

Equipment Limitation Zones in *Feet		
	<30%	>30%
Class II Watercourses	50	75
Class III Watercourses	30	50

***Feet = Measured along the ground based on slope**

WTCRS 2. Heavy equipment used in project operations shall not be serviced or fueled within 65 feet of a watercourse or in any locations where servicing will allow grease, oil, or fuel to pass into lakes or watercourses. Contractor shall maintain a spill response kit within reasonable proximity to equipment operations.

WTCRS 3. Equipment shall be checked each day for any signs of leaks and if discovered, shall be repaired immediately to State Parks or their supervised designee ([HVEQ 6](#)).

WTCRS 4. Operations shall not place, discharge, dispose of, or deposit in such a manner as to permit to pass into waters of the state, any substances or materials, including, but no limited to, soil, silt, bark, slash, sawdust, or petroleum in quantities which may cause harm to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water.

WTCRS 5. All staging areas and fueling or maintenance of vehicles and equipment shall occur outside of sensitive habitat areas and at least 65 feet from any water body, drainages (including storm drains) or riparian habitat.

- a. No petroleum products, chemical, silt, fine soil, or any substance or material deleterious to sensitive species shall be allowed to pass into or be placed where it could enter a stream channel.
- b. Any spills of hazardous materials shall be cleaned up and/or removed immediately. Any such spills shall be reported to State Parks or their supervised designee ([HVEQ 6](#)).
- c. Major vehicle maintenance, repairs, and washing shall be done off-site.
- d. Vehicular and equipment refueling is prohibited.
- e. Chainsaw fueling shall occur on service roads and only where spills can be easily cleaned and at least 65 feet away from streams, bridges, or other areas that can transport spilled materials into natural waterways.

Waterbreaks (WTBRK)

WTBRK 1. Waterbreaks shall be re-installed in their original locations and original configuration on appurtenant seasonal roads or staging areas used by the Contractor following operations and prior to October 15th on any year that operations occur.

- a. Contractors must have an appropriate piece of heavy equipment to construct waterbars on site, such as an appropriately sized excavator with a bucket, backhoe, or front-end loader with a hydraulically controlled box scraper on site a month prior and following the winter period (October 15th – May 1st).

WTBRK 2. Where waterbreaks need to be additionally placed following operations, they shall be placed similarly to other existing waterbreaks. At minimum, waterbreaks placed shall be placed at an approximate 45-degree angle, be cut diagonally to a minimum 6 inches into the firm roadbed or disturbed area, have a continuous firm embankment of at least 6 inches in height, and a width of 6 inches immediately adjacent to the lower edge of the waterbreak cut-out flow.

WTBRK 3. If the installation of additional waterbreaks cannot be accomplished by heavy equipment due to inability to access a site, then hand-dug waterbreaks may be constructed with less than the requisite 6 inches above grade and 6 inches below grade where appropriate but must be functional and maintain a 6-inch-wide outlet.

WTBRK 4. Waterbreaks shall be located to allow water to be discharged into some form of vegetative cover, duff (forest floor detritus), slash, rocks, or less erodible material wherever possible, and shall be constructed to provide for unrestricted discharge at the lower end of the

waterbreak so that water will be discharged and spread in such a manner that erosion shall be minimized.

WTBRK 5. Waterbreaks may be located and adjusted outside of the maximum waterbreak spacing specified at the discretion of State Parks or their supervised designee in order to reduce any potential impacts and allow for the beneficial use of water. The waterbreaks shall be situated in a manner as to allow water to drain into stable soil configurations.

WTBRK 6. Waterbreak spacing shall conform with the table below. The waterbreak spacing may also be adjusted by the State Parks or their supervised designee to create a greater level of protection than identified under general soil stabilization measures.

Maximum Distance Between Waterbreaks Measured in *Feet			
U.S. Equivalent Measure Road or Trail Gradient in percent			
10% or less	11-25%	26-50%	>50%
100	75	50	50

***Feet = Measured along the ground based on slope**

- a. Where vegetation is not adequate to act as a sediment filter at waterbreak outlet locations that have the potential to discharge sediment to a watercourse, the Contractor shall armor the road drainage outlets with slash, chunks of wood, rock, or other methods in consultation with the State Parks or their supervised designee.

Biological Resource Avoidance Measures

BIOME 1. The Contractor and all employees working on treatment are required to participate in a Biological Training for Workers hosted by the State Parks. The training will describe the appropriate work practices necessary to effectively implement the biological avoidance measures and to comply with the applicable environmental laws and regulations.

BIOME 2. If any California Endangered Species Act (CESA) or Federally Endangered Species (ESA) listed plant or animal is encountered, operations shall cease in proximity, and the area shall be avoided. State Parks or their supervised designee shall be notified immediately.

BIOME 3. If non-listed special-status plant species (i.e., species not listed under ESA or CESA, but meeting the definition of special-status species are identified during operations a buffer zone of 50 feet will be implemented around the species and contact will be made with the State Parks or the supervised designee to determine next steps.

BIOME 4. Project operations shall not occur until August 5th and be completed prior to March 23rd to avoid potential impacts to marbled murrelet.

BIOME 5. Nesting bird and bat roost surveys are required from February 15th to August 1st and shall be conducted within 7-14 days of any mechanical or manual treatment areas by State Parks or their supervised designee to determine if nesting activity is occurring.

- a. Where there are active nesting and bat roosts found and active operations must continue, a buffer zone flagged in pink glo/black stripe of 50-300 feet depending on the

species needs. State Parks or their supervised designee reserve the right to increase the buffer size as needed to protect sensitive species.

- b. Disturbance of nests/dens/roosts/nest cavities shall be avoided. If the Contractor identifies an active nest/den/roost/nest cavity, a buffer of 100 feet should be immediately established between the construction activities and the active nest/den/roost/nest cavity so that nesting activities are not interrupted, and State Parks and/or their supervised designee shall be notified. State Parks qualified personnel, a qualified RPF, or qualified wildlife biologist reserve the right to increase or decrease the buffer size as appropriate based on topography.

BIOME 6. It is likely that contractors will encounter woodrat nests. Woodrat nests should receive a buffer of 5 – 10 feet for mastication or equipment access. Woodrat nests may only be removed, if necessary, to access a portion of a treatment area otherwise inaccessible or reasonably pass from one treatment polygon to another, and Contractor must receive authorization from the State Parks or their supervised designee.

- a. Nest removal shall be avoided during the breeding season, if feasible (January 1st - September 30th). If woodrat nests must be removed during the breeding season, they will be slowly removed by hand to determine if young are present. If young are present the nest material shall be replaced, and the nest left alone for 2-3 weeks at which time the nest can be rechecked to verify that young are capable of independent survival before proceeding with nest dismantling. State Parks qualified personnel, a qualified RPF, or qualified wildlife biologist shall be notified to determine if young are present prior to removal.

BIOME 7. California Red Legged Frog (CRF) - mechanized operations will cease for precipitation events and saturated soil conditions per [HVEQ 1.e](#).

BIOME 8. Dogs are not allowed in this project area.

Archaeological Resources (ARCME)

ARCME 1. Recorded and known archaeological and/or cultural resources that have been discovered during project planning received an appropriate exclusion buffer and are flagged in orange and white flagging with “Special Treatment Zone”.

ARCME 2. If additional evidence of archaeological or cultural resources are discovered during project operations, all operations shall cease within 100 feet of the potential resource and the area shall be avoided. State Parks or their supervised designee shall be notified immediately.

ARCME 3. If any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits, are discovered during ground-disturbing activities, all ground-disturbing activity within 100 feet of the resources will be halted and a qualified archaeologist will assess the significance of the find.

Forest Pathogens (PATHO)

PATHO 1. All hand equipment including boots will be sanitized and heavy equipment hosed off prior to, and following, operations in areas where the spread of these diseases are possible.

PATHO 2. Each time equipment or vehicles leave the site, the equipment or vehicles should be inspected by operations personnel for host plant debris (leaves, twigs, and branches). Host plant debris should be removed from equipment and vehicles prior to their departure. This applies to all equipment and vehicles associated with the operation, including heavy equipment, equipment transport trucks and trailers, pick-up trucks, employee's personal vehicles, etc.

- a. Chips from mastication should not be thrown onto roads, near culverts, into nearby streams, or onto the base of trees to the maximum extent feasible. Other restrictions and limitations regarding where residual woody material can be broadcast can be found under [Understory Biomass Disposal](#) and [WTCRS](#).

PATHO 3. After working in an infested area, remove or wash off accumulations of soil, mud, leaves, twigs, and other organic debris from shoes, boots, vehicles and heavy equipment, etc. before traveling to an area that is not infested with pitch canker, dwarf mistletoe, western gall rust, and potentially sudden oak death. Lysol® or a bleach solution should be used to disinfect shoes and boots after cleaning.

PATHO 4. Disease host species, or disease infected trees should only be chipped back into areas where infected or host species are already present to avoid and minimize the risk of spreading disease.

PATHO 5. Diseased material of any kind i.e., firewood, logs, or lumber should not be transported as part of this project without observing the requirements for transport of material within a quarantine area or zone of infestation.

PATHO 6. Additional information for treatment of diseased material and/or transport can be found at the following links for these forest diseases:

- a. Pitch Canker: <https://ufei.calpoly.edu/pitch-canker-task-force-management/>
- ii. Sudden Oak Death: <https://www.suddenoakdeath.org/wp-content/uploads/2014/12/forestry-08-10-with-new-2014-map.pdf>

PATHO 7. Additional guidelines to prevent spread of plant pathogens:

- a. minimize soil disturbance as much as possible by limiting the number of vehicles, avoiding off-road travel as much as possible, and limiting use of mechanized equipment;
- b. minimize movement of soil and plant material within the site, especially between areas with high and low risk of contamination;
- c. clean soil and debris from equipment and sanitize hand tools, buckets, gloves, and footwear when moving from high risk to low risk areas or between widely separated portions of a treatment area;

Invasive Species (WEEDS)

- WEEDS 1. Invasive species should only be chipped back into areas where non-native species are already present to avoid and minimize the risk of spreading invasive species.
- WEEDS 2. Clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, other debris or seed-bearing material, or water (e.g., rivers, streams, creeks, lakes) before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife;
- WEEDS 3. For all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants, noxious weeds, or invasive wildlife. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species;
- WEEDS 4. Inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the State Parks or their supervised designee will deny entry to the work areas;
- WEEDS 5. Stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area;
- WEEDS 6. Treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and Implement Fire and Fuel Management BMPs outlined in the “Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers” (Cal-IPC 2012, or current version).

Tree Paint & Flagging Key

1. **Painted Blue Bole Stripe Accompanied by Blue Stump Dots** – indicates a tree marked for removal.
2. **Blue and white striped flagging** – Water Course and Lake Protection Zones (WLPZ) for Class I and II watercourses.
3. **Blue flagging** – Marks the centerline of a Class III watercourse. May also be utilized to mark the location of a waterbreak that needs to be constructed. The location of the waterbreak will be designated by placing a flag at the waterbreak inlet and an additional flag at the waterbreak outlet.
4. **Pink glo and black striped flagging** – Equipment Exclusion Zone. Utilized for the protection of wood rats' nests, or other sensitive wildlife resources, and marks the equipment exclusion buffer to Class III watercourses.
5. **Orange and white stripped flagging with the words "SPECIAL TREATMENT ZONE"** – Special Treatment Zone. Contractor shall contact State Parks their designee for more information on these zones and these zones shall not be entered without permission.
6. **Pink glo** – Identifies a potential hazard to equipment or people that should be investigated on foot prior to operating equipment. Also identifies hazard tree marks that may be hidden by understory regeneration.
7. **Orange glo** – Identifies areas of retention for sensitive vegetation.
8. **Solid pink glo flagging accompanied by solid white flagging** – Special instructions to the Contractor written on the white flagging in black permanent pen. May also indicate an approved location to cross a Class III watercourse with heavy equipment or a track chipper.
9. **Yellow flagging with the words "SKID TRAIL" on it** – Location where heavy equipment may travel off-road to access treatment areas or hazard trees marked for removal. Each unit will have main line skid trails identified prior to operations where heavy equipment may travel to and from a staging area for refueling to reduce ground disturbance.
10. **Orange flagging with the words "TRUCK ROAD" on it** – Location where vehicles licensed for use on county roads and state highways may travel. Predominantly utilized to identify appropriate locations of seasonal or winterized road use as a staging area for contractors.

EXHIBIT D
Lodge Road Demonstration Project, 2025
BID FORM

Bids due on or before January 23, 2025

Task	Unit Price	Total Cost
Redwood Unit A	\$/acre _____	\$ _____
Redwood Unit B	\$/acre _____	\$ _____
Log Loading Estimate 50 loads	\$/load _____	\$ _____
Forest Product Hauling	\$/Hour _____	\$ _____
TOTAL COST ESTIMATE		\$ _____
TOTAL COST NOT TO EXCEED (with 10% contingency)		\$ _____

EXHIBIT E
Lodge Road Demonstration Project, 2025
STATEMENT OF MANAGEMENT APPROACH

Statement of Management Approach (including description of ability to meet schedule and deliverables), proposed work plan and schedule, description of ability to meet all schedule deadlines and deliverables. There is no fixed page limit for proposals or technical attachments, but respondents are encouraged to be concise.

Qualifications and Capacity

Licensing _____

Existing Commercial Liability Coverage Amount _____

Existing General Liability Coverage Amount _____

Proposed subcontractors and additional expertise

--

Description of equipment owned or proposed to be used for services for this project.

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EXHIBIT F
Lodge Road Demonstration Project, 2025
Relevant Project Examples and References

Include relevant project examples and references

Project _____

Description _____

Project Coordinator Name and Contact Info: _____

Project _____

Description _____

Project Coordinator Name and Contact Info: _____