

**Request for Proposals**  
**Lytle Creek Community Buffer Fuels Reduction Project**  
**San Bernardino National Forest, San Bernardino County**

**Background and Statement of Work:**

The Lytle Creek Hazardous Fuels Reduction Project is located within the San Bernardino National Forest in Lytle Creek Canyon and the immediate area surrounding the community of Lytle Creek. The project will reestablish the structural integrity of previously constructed fuelbreaks as well as implement new fuelbreaks in locations that will provide wildland fire suppression modules (Engines, Crews, Dozers, Aircraft etc.) more advantageous and effective opportunities to safely engage wildfires and protect the community of Lytle Creek.

**Information Requested**

If interested in submitting a bid for this project, please provide a proposal for the above statement of work by providing:

- technical approach
- work experience
- cost
- capacity for this project
- experience in similar projects

Specific requirements are detailed below.

**I. PROJECT OVERVIEW AND REQUIREMENTS**

**General Specifications**

- (a) Description of Work – This Request for Proposals is for restoration services related to fuel reduction in the Lytle Creek Community Buffer Fuelbreak Project areas, including the following:

The project will focus on reestablishing and creating new strategic fuelbreaks, to create safe access to National Forest System lands while enhancing community and forest protection. The project will be divided into two project units (Please refer to Appendix B: Map Hand Treatment, Appendix C: Map Mastication and Appendix D: Hand Piling Map).

Project Unit:

**Lytle Creek Community:**

A combination of mechanical and hand treatment methods will be utilized to accomplish fuel modification and redevelopment of a fuelbreak within the unit boundary including the following:

- Create a 300' wide fuelbreak around the community of Lytle Creek adjacent to private property to reduce fire intensity by:
  - Thinning
  - removing hazardous fuels
  - pruning of trees as needed to meet a 10-foot crown base height or to a 50 percent stem to crown ration, whichever is lower (one half the height of the tree)

This will be accomplished by utilizing:

- Mechanical thinning
- Hand thinning
- Preparation for pile burning
- The application of herbicide to cut chaparral species
- Reducing shrubs to approximately 20–40 percent ground cover within the existing fuelbreak, and in newly established fuelbreak areas.

The Contractor shall identify what they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work described. The Contractor shall perform all work in a safe and conscientious manner.

(b) Project Location – The project is located within the San Bernardino National Forest in Lytle Creek Canyon and the immediate area surrounding the community of Lytle Creek in San Bernardino County.

(c) Work Schedule – Work is expected to begin in September 2024.

**Other Project Requirements and Specifications**

(a) Utilities – In many locations there will be no or limited sanitation, water, electrical or housing services available. The Contractor shall make its own arrangements for temporary facilities if needed.

(b) Specifications – Project work shall be accomplished in accordance with the following:

- **Mechanical and manual fuel treatments**
  - Shrubs within the existing fuelbreak, and in newly established fuelbreak areas, will be reduced to approximately 20 percent ground cover.
  - The distance between edges of shrubs and shrub groups will be 10 feet on 20 percent slopes, 20 feet on 20-40 percent slopes, and 40 feet on slopes over 40 percent.
  - Shrub groups will not be larger than 20 feet in diameter and will be at least 40 feet from the edge of the fuelbreak.

- Heavy equipment, such as masticators or other tracked equipment (e.g. Chipper), will only be used on ground with slopes less than 35 percent, except to make access from one area to another and for short pitches, up to 50 percent slope generally not to exceed 200 feet in length.
  - Manual thinning will consist of cutting and limbing of trees and shrubs, road brushing, weed abatement, and application of herbicides using cut stump and foliar application methods within the project. Limbing will occur on any residual trees up to 4 feet from the ground or so that no branches, live or dead are touching the ground.
  - Where mastication and chipping occur, chipped residue depth will not exceed 4 inches and cover no more than 75 percent of the treated area.
  - Where chipping occurs, the chips will be directed within the fuelbreak and away from improvements and property lines.
- **Herbicide treatments**
    - Acceptable herbicides for use include:
      - **Glyphosate:** Glyphosate is a non-selective, systemic herbicide that can control most annual and perennial plants. Aquatically approved formulations of glyphosate would be used (Rodeo™). This formulation requires the use of a surfactant.
      - **Triclopyr:** Triclopyr is a selective systemic herbicide used to control woody and herbaceous broadleaf plants. For cut stump applications the ester form of triclopyr is used, which is the form found in the trade formulation Pathfinder II. Surfactants and Dyes.

Surfactants:

- Glyphosate and Triclopyr require the use of a non-ionic surfactant to be mixed with the herbicide before use. All herbicide applications under this project will use a modified seed oil (MSO) type surfactant. Trade formulations of MSO surfactants include Hasten, Competitor, JLB Oil Plus, and Cide-Kick. In addition, the proprietary surfactant in Pathfinder II, a ready-to-use triclopyr-based product, is modified seed oil. No petroleum or petrochemical-based surfactants will be used. No POEA surfactants (the surfactant found in the commercial glyphosate formula RoundUp) will be used.

Dyes:

- Dye will be added to herbicide mixtures to enable spray crews to see where they have sprayed after the initial evaporation of the solution. This project would utilize Hi-Light Blue® dye or similar biodegradable colorant to facilitate visual control of the application.

Herbicide Treatment Methods:

- **Cut stump applications** involve cutting the plant and immediately spraying all hand cut and machine cut stumps with an herbicide. This method is used for the control of large woody species and will likely be used for the initial treatment of larger vegetation. Herbicide is applied via

hand sprayer and sponge or with a backpack sprayer at close range to a stump, immediately after cutting. The technique will be used in late summer and early fall when species are translocating nutrients to the roots before the dormant season. The cut stump technique is effective while limiting the total amount of herbicide to be applied and lessening the possibility of overspray and herbicide drift. Follow-up foliar applications to resprouts are almost always necessary on a proportion of the plants treated.

- **Foliar applications** involve spraying green foliage on target species with directed spray from backpack-type sprayers. This method would be used on resprouts and smaller target species.

The contractor will provide the Forest Service with Notice of Application before applying herbicide in the project area.

- **Roadside Brushing**

- Treatment will extend approximately 25 feet beyond the edge of road prism on Forest Service lands in the identified project areas. This includes removing both dead and live shrubs.
- Exception: Shrub barrier may be left in areas where unauthorized OHV is a concern.

- **Hand Piling**

- Most hand piles will be an average of 8 feet in diameter and 6 feet in height and will be located away from residual trees and shrub patches to minimize crown and bole scorch. Burn piles will be away 20 feet from fuelbreak perimeter and 10 feet from known cultural resources and threatened, endangered, and sensitive plant species.
- When broadcast burning is used, control lines established will be cleared of all vegetation based on the fuel type adjacent to the control line. Any fuels (generated from the treatment activities) will be piled and burned, cut and lay, lop and scattered, chipped, or scattered back into the treated area and burned.
- Hand piles will be restricted only to portions of the fuel break that are along roads and only on slopes that are < 20% and no piles will be made where the fuel break is on ridgelines/slopes where access by vehicle is limited.

- **Reporting**

- The Contractor will provide an updated Polygon of the work area with the final invoice. Avenza is acceptable.
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The Contractor shall adhere to Appendix A: Additional Specifications.

## **Insurance Requirements**

Upon selection of the winning bid, the Contractor agrees that it has and shall maintain the following insurance coverage indicated below. The effective date of all coverage shall precede the start of any work.

- a. State minimum workers' compensation insurance coverage for its employees, if any.
- b. Broad form general liability, property damage, and automotive liability insurance in the minimum amount of \$1,000,000 for bodily injury, death, or damage to property of any person and \$2,000,000 for bodily injury, death, or damage to property of more than one person. The Contractor shall name NFF an Additional Named Insured and

provide NFF with a certificate of insurance evidencing such coverages, prior to the initiation of the Scope of Services.

- c. If the Scope of Services includes professional services as identified herein, Contractor shall also provide professional errors and omissions liability insurance. Professional services for purposes of this section include, but are not limited to performing architecture, engineering, landscape architecture, land surveying or planning, preparation and signing or stamping of drawings, maps, surveys or construction specifications, or design and development of computer software, programs or websites by the Contractor or by subcontractors on behalf of the Contractor, for which professional liability insurance would typically be required. The minimum coverage limits required are \$1,000,000 for each claim and \$1,000,000 annual aggregate.

### **Prohibited Telecommunications Services and Equipment**

The Contractor is responsible for compliance with the prohibition on certain telecommunications and video surveillance services or equipment identified in 2 CFR 200.216.

### **Payment/Performance Security**

Contractor shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the NFF, in its sole determination, to assure completion of the work required under any subsequent agreement and payment of all amounts lawfully due to all persons supplying or furnishing to the Contractor or Contractor's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. Contractor may incorporate required associated costs into mobilization costs or other approved expenses.

- a. Work that is classified as construction in accordance with the Miller Act or Little Miller Act or if required per conditions of the funding source, payment and performance bonding will be required in the full amount of any Agreement. For the purposes of this Request for Proposal, construction is defined as "any contract greater than \$100,000 for the construction, alteration, or repair of any public building or public work where the federal government is the owner", or
- b. If Contractor is not self-performing at least 85% of the total contract value or if the cost of materials is in excess of the larger of \$100,000 or 50% of the contract total, payment and performance bonding will be required in the full amount of the agreement, or
- c. If the value of the agreement is in excess of \$250,000, Contractor will be required to post financial security in a form acceptable to the NFF in the amount of 5% of the total agreement value up to \$250,000 in total financial security.

### **Federal Exclusion Verification**

The selected Contractor will be required to affirm that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

**Competitive Range**

The expected competitive range for bids to this solicitation is \$475,000 to \$501,000. Bids in excess or below this range may still be considered.

**I. REQUIRED COMPONENTS**

**Technical Proposal**

Please provide a detailed technical approach to the work.

**Contractor Qualifications**

- I. Past Experience – Please provide a brief explanation of previous work experience with land management agencies.
- II. References – Please provide three professional references that can speak to past performance.

**Pricing Schedule**

Contractor shall price work according to the schedule below.

	<b>Task/Item</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Extended Cost</b>
(a)	Mechanical fuel and Hand fuel treatments	334		
			<b>Total Bid</b>	

**III. SUBMISSION, EVALUATION, AND CONTACTS**

**Contractor Selection Process**

This is a request for proposals only and bids furnished are not offers from the National Forest Foundation. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation or submission of the proposal or to contract for supplies or services.

The NFF will use the Evaluation Factors below to review each submitted bid. Based on the outcomes of that selection process, the NFF will notify successful and unsuccessful bidders by August 30, 2024 and will prepare a separate contract document.

## Evaluation Factors and Relative Importance

The following criteria will be used in the evaluation of submitted proposals, ordered from highest weighting (level 3) to lowest weighting (level 1).

### Level 3 Criteria

- Price / cost
- Equipment and contractor capability
- Timing of when contractor can begin and/or finish the project
- Past performance, references, and USFS feedback

### Level 2 Criteria

- Technical proposal / proposed approach to project
- Overall strategic benefits to meeting NFF goals and grant needs, requirements, and timelines

### Level 1 Criteria

- Benefits to the local community
- Relationship to local community

## Point of Contact

Please submit any questions about the project in writing to the Point of Contact.

Brian Robey  
National Forest Foundation Southern California Program Manager  
[brobey@nationalforests.org](mailto:brobey@nationalforests.org)

Responses will be shared with known interested parties by email or otherwise posted at <https://www.nationalforests.org/rfp>.

## Bid Submission

Submit bids via email to [brobey@nationalforests.org](mailto:brobey@nationalforests.org) by August 16,2024.

## Equal Opportunity Provider

In accordance with Federal law and U.S. Department of Agriculture policy, the National Forest Foundation is prohibited from discriminating on the basis of race, color, national origin, sex, age, religion, political beliefs, or disability.

## **Appendix A: Additional Project Specifications**

### **Equipment Cleaning**

All off-road equipment used on this project shall be washed before moving into the project area so that the equipment is free of soil, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds. "Off-road equipment" includes all logging and construction equipment and such brushing equipment as brush hogs, masticators, and chippers; it does not include log trucks, chip vans, service vehicles, water trucks, pickup trucks, and similar vehicles not intended for off-road use.

Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris. Disassembly of equipment components or specialized inspection equipment is not required. The contractor shall notify the Contracting Officer at least five days in advance of moving equipment so that arrangements can be made for inspection.

If the project area is known to contain noxious weeds, the equipment shall be cleaned before moving to other Forest Service system lands that do not contain noxious weeds.

### **Avoidance Measures**

#### **Botany**

1. All treatment fuels generated will be piled no less than 10 feet from flagged populations of sensitive plants.
2. **Invasive Plant Species**
  1. In areas where chipping occurs, chips will be directed back into the areas of the fuel reduction where vegetation has been removed to suppress the growth of non-native annual grasses.
  2. To the extent possible, burn piles would be placed in areas of weed infestation to help deplete the seed bank.

#### **Herbicide Application**

1. Herbicide will be either Tryclopypyr-based herbicide (i.e. Pathfinder™) or Glyphosate-based herbicide (i.e. Rodeo™) mixed with a methylated seed oil surfactant (MSO) and a short-lasting colorant (Hilight blue or the equivalent) as an indicator of treated stumps. Herbicide would be mixed to label specifications and herbicide application would be restricted to cut and daub application or low volume foliar application using backpack sprayers.
2. All herbicide application will be conducted and/or supervised by a licensed applicator registered with the State of California.
3. Herbicide applications on perennial species will occur August through October when plants are translocating nutrients from the leaves to the root systems. This increases the likelihood of initial success and would result in reduced need for follow-up treatment. This season also avoids critical breeding seasons for many wildlife species and flowering seasons for many native plant species.
4. The Herbicide Transportation, Handling, and Emergency Spill response Plan and spill kit



will be on-site when herbicide treatment occurs. The Plan will include reporting procedures, project safety planning, methods of clean-up of accidental spills, and information including a spill kit contents and location as noted in Forest Service Manual (FSM) 2150, Pesticide-Use Management and Coordination Handbook.

5. Posting of the area for public notice during the herbicide application and the Restricted Entry Interval will follow County permit requirements.
6. Recently herbicide treated areas shall not be reentered, at a minimum, until the herbicide has dried. If the herbicide label specifies a reentry period or restricted entry interval, treated areas with known public use such as picnic areas and trails must be posted with signs warning visitors and others not to enter the treated area. The signs should indicate that the area has been treated with an herbicide, what materials were used, and the name and telephone number of a contact person.
7. Equipment used for transportation, storage, or application of herbicides will be maintained in a leak-proof condition.
8. Herbicide containers will be secured and prevented from tipping during transport. Herbicide containers will be made of plastic to reduce the risk of breaking or cracking during project implementation.
9. To reduce the potential for spills, impervious material such as a bucket or plastic will be placed beneath mixing areas to contain any spills associated with mixing/refilling.
10. Application of herbicides will follow all local, state, and federal laws and regulations as they apply to pesticides and all label language for the herbicide shall be followed.
11. Herbicide usage will be limited to the amount required by the label.
12. Mixing and loading of herbicides and washing or rinsing herbicide spray equipment shall not be done within 300 feet of any body of water or stream channel except on hardened surfaces such as roads and trails in a full containment situation and where topography makes it infeasible to go 300 feet. In these situations, full containment must be provided, and a portable spill kit shall be on site. All herbicide containers and rinse water will be disposed of in a manner that would not cause contamination of
13. To avoid drift during application:
  - a. spray height – application at the lowest effective coverage height for the target species, application method, and herbicide.
  - b. spray direction - application at a downward angle.
  - c. wind speed – application at wind speeds less than 10 mph; selecting a nozzle type with a coarser droplet size; and adjusting spraying pressure.
14. No herbicide application will occur if precipitation is occurring or if a 30 percent or higher chance of rainfall is predicted to occur by the National Weather Service within 48 hours of application. During application, trained personnel will monitor weather conditions periodically.
15. Herbicide application will not be allowed within 100 feet of each side of the high-water mark, defined as the high water line associated with “bankful” discharge of perennial streams, or the mean high waterline of lakes, ponds, wetlands, seeps, meadows, and springs. Buffer distances are based on horizontal distances.
16. Herbicide treatments will not occur within a 100-foot buffer of sensitive plant species occurrences. Exceptions may be made if the treatment is monitored by a Botanist.

Treatments near TEPCS plant species will not occur during the blooming period for that plant.

17. No herbicide treatments will occur within twice the “dripline” (distance from edge of canopy to trunk) of any native tree.
18. Any spills will be cleaned up immediately and will be reported immediately to the COR for required notifications and reporting.
19. We require a Notice of Application from the contractor to the Forest Service before herbicide application, notifying the Forest Service before any treatment takes place.

### **General Wildlife Species Design Criteria**

1. Crews will not intentionally injure or kill wildlife species (including snakes). Instead, animals will be allowed to leave the work area before work resumes.
2. Where available and within the capability of the site, retain a minimum of six downed logs per acre (minimum 12 inches diameter and 120 total linear feet) and 10 to 15 hard snags per five acres (minimum 16 inches diameter at breast height and 40 feet tall, or next largest available). See also additional requirements in the CA Spotted Owl Design Criteria below.
3. If active bird nests are found (tree nests, cavity nests, and ground nests) between March 1 and August 31 during project implementation, the Government shall be contacted to evaluate and recommend protection measures in compliance with the Migratory Bird Treaty Act. In all other months, consultation with the Government is required only if bird activity is observed around the nest.
4. Nighttime work will be avoided during this project. Nighttime is defined as the period between sunset and sunrise.
5. To the greatest extent possible, active animal dens, shelters, including woodrat nests/middens, burrows and nests will be avoided. Retain woodrat nests when feasible, where they do not threaten the integrity of the fuelbreak.
6. In accordance with the California Spotted Owl Conservation Strategy guidelines for woodrat nest retention, retain all woodrat nests in PACs and HCRs in the defense zone between 300 ft and the limit of the defense zone/fuelbreak. Retain woodrat nests within the 0-300 ft zone where they do not threaten the integrity of the fuelbreak or defense zone.
7. When conducting mechanical fuels treatments within the treatment area, retain woodrat nests in PACs and HRCs.
8. If active bird nests are found during project implementation, activities will cease within 300’ (or 0.25 miles for raptors) until the project wildlife biologist is notified. The wildlife biologist will determine whether activities may resume or whether additional protection measures are needed.
9. Disturbance of existing downed logs and rock outcrops will be avoided.

### **10. Threatened and Endangered Wildlife Species**

1. Treatment activities within 500 feet of all suitable Southwestern Willow Flycatcher and Least Bell’s Vireo habitat will be avoided during the breeding season for southwestern willow flycatcher (May 1st – August 31st) and Least Bell’s Vireo (March 15th - September 15th) unless one of the following exceptions apply:

- a.
2. Removal of riparian vegetation within suitable habitat would not occur during the breeding season for southwestern willow flycatcher (May 1st – August 31st) and least Bell's vireo (March 15th – September 15th) unless protocol surveys are conducted annually, and it is found to be unoccupied during that season.

### **California Spotted Owl**

The California Spotted Owl Conservation Strategy guides the design of vegetation and fuels management efforts within Protected Activity Centers (PACs) and Home Range Cores (HRCs) to retain important habitat components and forest stand structure. No treatments will take place in known spotted owl nest stands (30 to 60 acres around the nest trees). Specific measures designed for use in Wildland Urban Interface Defense and Threat Zones are found on pages 23 and 24 of the strategy. Design criteria will be implemented based on WUI type and are listed below:

#### WUI Defense Zones

1. In PACs and HRCs, treat forest stands to meet fuels management objectives to protect life and property. Remove grass, shrubs, small trees, and ladder fuels to distances specified by standards for defense zones, while reducing forest canopies to no less than 40 percent live crown cover if available.
2. Try to avoid treatments within the Nest Stand. Exceptions would include sites where fuels within the Nest Stand pose an unmitigable threat to the defense zone or fuelbreak. In those cases, the treatment for the Nest Stand would be developed in a coordinated effort between a silviculturist, biologist, and fuels specialist.
3. Where treatments in Nest Stands cannot be avoided:
  - a. avoid habitat disturbance within 200 ft of the nest tree
  - b. conduct limited ladder fuel treatment within the 200 ft zone around nest trees if the biologist and fuels specialist determine that it would be beneficial, including hand line construction, tree pruning, and cutting small trees.
  - c. if necessary, treat more heavily outside the nest stand to compensate for protecting the nest tree.
  - d. tree felling outside the 200 ft zone should be done directionally away from the nest tree and the 200 ft zone.
4. Within the 0 to 300 ft treatment zone, no standing dead trees or downed logs will be left unless they can be left without threatening the fuels reduction objectives.
5. Retain all woodrat nests in PACs and HCRs in the zone between 300 ft and the limit of the defense zone/fuelbreak. Retain woodrat nests within the 0-300 ft zone where they do not threaten the integrity of the fuelbreak or defense zone.

#### WUI Threat Zones

1. Within PACs, retain existing overstory and midstory canopy cover except where reduction is needed to bring fire to the ground in support of defense zone.
2. Within HRCs meet fuel loading goals while retaining a minimum of 50 percent

canopy cover except where:

- a. reduction is needed to bring fire to the ground in support of the defense zone or central zone of fuelbreak.
  - b. the canopy has been drastically altered by concentrations of dead trees, and removal of dead trees would reduce the canopy closure below 50 percent.
3. Avoid treatments within California spotted owl nest stands. If removal of hazard trees is necessary within spotted owl nest stands, minimize habitat disturbance within 200 feet of nest trees. Directionally fell trees away from the 200-foot perimeter around the nest tree. Known nest trees will not be cut unless they are considered imminent threats to life and/or property and are cut in coordination with district wildlife biologist.
  4. Within PACs and HRCs, retain at least 9 down logs per acre of the largest logs available.
  5. Within PACs and HRCs, retain 4 to 8 of the largest snags available per acre, or at least 20 ft<sup>2</sup> basal area per acre of snags greater than 15 inches DBH and 20 feet tall.
  6. When conducting mechanical fuels treatments, retain woodrat nests in PACs and HRCs. Fuels will be raked away from within 10 feet of nests within PACs and HRCs prior to burning if necessary, to protect them.
  7. Maintain a limited operating period (LOP) prohibiting activities within approximately .25 miles of a California spotted owl nest site or activity center where nest site is unknown, during the breeding season (February 1 through August 15), unless surveys confirm that the owls are not nesting. Follow the USDA Forest Service (1993, 1994 or subsequent) protocol to determine whether owls are nesting. When evaluating the need to implement a limited operating period, site- and project-specific factors need to be considered (use species management strategy or subsequent guidance) (LMP Part 3 Standard 20). In accordance with 2004 California Spotted Owl Conservation Strategy, exceptions to the LOP may be applicable depending on type and intensity of the activity, status of the territory, and physiographic features that could serve as barriers to the nest site. Project leader will coordinate with the District Biologist and Line Officer to identify applicability of these exceptions on a case-by-case basis.
  8. Within PACs and HRCs, retain (and strive to protect) the largest trees within the treatment area, including all live trees greater than 24 inches diameter breast height unless they are at unnaturally high densities. Exceptions allowed for operability (CASPO Conservation Strategy, p. 23 and 24, table 2).
  9. Spotted owls often use perch sites located 15 to 20 feet off the ground in the midstory for foraging. Retention of some low branches in PACs and HRCs for perch sites is important during ladder fuel treatments and will be considered where it does not compromise the integrity of fuels reduction efforts. This objective will be included in marking guidelines for PACs and HRCs.

## **Hydrology**

### **The implementation methods to be employed include:**

1. Mastication on slopes under 35%, except for short (<200 feet) stretches from 35-50%

that will be used to access additional <35% areas.

2. Hand thinning of chaparral on any slope.

### 3. Watershed Protection Design Features

4. Mechanical equipment use (masticator) requires dry soil conditions during project implementation to prevent soil compaction or rutting greater than three (3) inches depth.
  - a. If the National Weather Service has a 50% of precipitation in the area, mastication will not take place.
  - b. Following any precipitation of 0.25 inches in 24 hours, at least 7 days of dry conditions will be required before mastication is allowed.
2. Mechanical equipment operations would be limited to slopes less than 35% except for short (<200 feet) stretches from 35-50% that will be used to access additional <35% areas.
  - a. Mastication cutting on these 35-50% slopes will be limited to the extent required to create the path to the next <35% area.
3. Mechanical treatment (hand crews using chainsaws is permitted) is prohibited within 328 feet of perennial channels, 98 feet of intermittent channels while mechanical equipment is permitted in ephemeral drainages so long as the minimum ground cover requirements are met.
4. Within RCAs, retain all snags and downed logs. Exceptions would be made if snags and logs are identified as a threat to life, property, or sustainability of riparian conservation areas.
5. Hand piles will not be placed in or within RCAs (including 328 feet of a perennial channel, 98 feet of an intermittent channel and 50 feet of an ephemeral channel).

### Riparian Conservation Areas

1. Refueling of equipment and storage of fuel and other hazardous materials would not occur within RCAs (perennial and seasonal streams, seeps, springs, and meadows). Storage of any quantity of fuel greater than 100 gallons would require a California Engineer Spill Plan.
2. Designate season of use to avoid or restrict road use during periods when use would likely damage the roadway surface or road drainage features. Implement protocols for RCAs found in Appendix E of the Forest Plan (328 feet on perennial streams, 98 feet for intermittent streams and 50 feet for ephemeral streams), and the Forest supplement to Forest Service Handbook 2509.22 (USDA 2005). The most relevant, and not previously called out, include:
  - a. "ALL APPLICABLE BEST MANAGEMENT PRACTICES (BMPs) SHOULD BE IDENTIFIED AND FOLLOWED IN ALL GROUND DISTURBING FOREST MANAGEMENT ACTIONS, including in all contracts, operating plans, and work orders."
  - b. A minimum protective ground cover objective shall be established and maintained where natural conditions allow throughout the year.

### Erosion Hazard Rating

The Erosion Hazard Rating (EHR) is used to guide land management activities on erosive lands. The soils analysis (below) specifies which sections of the project area fall within the various categories. During project activities, minimize excessive loss of organic matter and limit soil disturbance according to the EHR as follows:

Exhibit 01 Minimum Effective Ground Cover based on Erosion Hazard Rating (as determined by Soil Survey).

<b>EHR</b>	<b>Minimum Effective Groundcover</b>
Low (4-5)	40 percent
Moderate (6-8)	50 percent
High (9-10)	60 percent
Very High (11-13)	70 percent

<b>EHR</b>	<b>Minimum Effective Groundcover</b>
4 to 8	Conduct normal activities
9 to 10	Minimize or modify use of soil-disturbing activities
11 to 13	Severely limit soil-disturbing activities

1. Protective ground cover consists of any combination of living plants, litter, slash and duff.
2. Litter and slash should be 2 inches deep and made up of material 4 inches or less in diameter to qualify as protective ground cover in mixed conifer forests. In other areas outside of mixed conifer forests, determine amounts based on local conditions.
3. In forested types duff or humus should be an average of 1 inch deep to qualify as protective groundcover or within site potential. Note: this condition seldom exists in chaparral.

**Table 1. Minimum Effective Ground Cover per Site**

Project Areas	RCA Typo (distance in meters)	Erosion Hazard Rating	Minimum Effective Ground Cover	Comments
Lone Pine Canyon slopes	Stream 30 in canyon bottoms and Lone Pine Canyon Road	Moderate	50%	Slight erosion hazard on lower flats; 40% cover required near Lone Pine Canyon Road
Lone Pine Canyon ridges	None	Moderate	50%	This groundcover is required despite not being an RCA
3N29	Stream 30 for lower half	Moderate	50%	
3N31 Ridge road	None	Moderate	50%	This groundcover is required despite not being an RCA
North Fork Lytle Creek slopes	Stream 30 in canyon bottoms	Moderate	50%	
3N06 Road buffer	Stream 30	Moderate	50%	Portions of the buffer are in the RCA. No heavy equipment, all root masses left, riparian vegetation preserved
Lytle Creek Community defense zone	Stream 100, Meadow on north side	Moderate	50%	Portions of the buffer are in the RCA. No heavy equipment, all root masses left, riparian vegetation preserved
Lower Lytle Creek Ridge	None	Very High	70%	This groundcover is required despite not being an RCA
San Sevaine Ridge	None	Very High/ High	60-70%%	This groundcover is required despite not being an RCA

4. Vegetation management (removal or alteration) within an RCA should not reduce riparian ground cover by more than 30 percent (maximum) of that which naturally occurs within the project area.
5. Where percent ground cover is less than prescribed, treatment should be applied that increase cover to minimum standards as natural conditions allow. Possible treatments include; establishment of living plants, introduction of little, slash or other treatments as prescribed by an earth scientist or biologist.
6. Suitable mulch material includes 2 inches of litter or slash, less than 4 inches in diameter.
7. Take precautions to ensure protection and/or maintenance of sensitive riparian resources in the design and timing of prescribed burns. Design prescribed burns using species-specific criteria to avoid or minimize adverse effects to riparian-dependent resources and threatened, endangered, proposed, candidate and sensitive species habitats.
8. Access to work sites should be via pre-existing routes to the greatest extent possible. If new temporary routes are needed, these routes should be reviewed by an earth scientist or biologist prior to approval. All new ground disturbances should be held to the minimal amount necessary to accomplish the job.
9. Minimize removal of existing willows or other native woody riparian species with the project site. After temporary road construction and use is terminated, the site should be returned to preexisting contours and revegetated where deemed appropriate by the earth scientist or biologist.

## Recreation Measures

### Lytle Creek Community Buffer:

#### Segment 1: Community Buffer

The West Slope of the project area holds a forest service campground and picnic area that could be impacted by the project. The Picnic Area and Campground may have to be closed during prescribed burning adjacent to the area. Fuel Breaks when all possible will terminate 25 to 50 feet from roads to minimize illegal Vehicle and OHV impacts to the area, when possible using selective cutting of vegetation methods examples are shaded fuel breaks, eye browning and vertical slash/ mulching. Different methods of barriers (chunking, tank traps, fencing and creating vertical face slopes, greater than vehicle approach angles) can be used to stop motorized impacts to these fuel break junctions at roads.

#### 1. Heritage

1. **Working adaptively for mutual benefit.** Heritage staff, IDT members, project implementation staff, and tribal representatives will work together to select and provide protection measures to cultural resources that allow project goals to be achieved to the highest level, including the best protection of cultural resources from wildfires. This may include flagging; virtual flagging (using Avenza etc.); prescriptions (avoiding fencelines, avoiding road features and crossing roads at right angles etc.); selecting alternate treatment methods, pre-treating areas with cultural resources; treating areas of heavy vegetation prior to heritage inventory; monitoring for adaptive management, evaluating sites for eligibility to the National Register of Historic Places; creating management plans for any tribal collection area, historic property or other priority heritage asset within the area of potential effects as provided for by the terms of the Programmatic Agreement among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management Of Historic Properties by the National Forests of the Pacific Southwest Region, 2018 (2018 R5 PA); the 2007 Region Gathering Policy; updated versions of the Regional Programmatic Agreement or Gathering Policy and FS Manual or Handbook Direction.
2. **Tribal gathering across the project area.** Herbicide use within specific tribal traditional plant gathering areas may require limited operating periods or temporary avoidance and must be coordinated with the project archaeologist as described in the Herbicide Design Criteria
3. **Areas of Deferred Survey.** Cultural resources must be adequately identified prior to carrying out first entry treatment or subsequent entries activities in order that undertakings avoid historic properties. Due to the difficulty of identifying historic properties in untreated chaparral, 2018 R5 Programmatic Agreement Appendix H provides for strategic survey methods including carrying out first entry treatment (mechanical or prescribed burning) prior to inventory. Areas that cannot be adequately inventoried prior to implementation due to dense vegetation will be mapped for project implementors: when first entry treatment has been accomplished (fall through spring), the project archaeologist should be notified so that inventory can occur the following summer. Inventory is to be carried out before second entry treatment. Portions of the



undertaking may need to be modified, redesigned, or eliminated to properly avoid historic properties.

4. **Fuels treatment methods for “Special Treatment” Areas.** Areas that require special treatment will be mapped. When treatments are to be conducted within or near special treatment areas, the project archaeologist must be notified so that archaeologists, project managers, and other IDT members, can determine which vegetation should be retained (usually a sparse “eyebrow” to prevent looting or damage by OHV use, or plants of interest to tribes) and which may be cut or treated with herbicides. Within special treatment areas, Standard Resource Protection Measures described in the 2018 R5 PA Appendix H may be used as follows:
  - a. Hand tools, both motorized and non-motorized, may be used.
  - b. No piles may be made within the boundaries of special treatment area.
  - c. Equipment for chipping may be used while remaining on Forest System Roads and turnouts (avoiding drainage and retaining features).
5. **Fuels treatment methods for “All Fuels Treatments Allowed” Areas.** Areas that have been surveyed for cultural resources and do not require “Special Treatment” allow for the whole range of fuels treatment methods (chipping, mastication, hand-cutting, herbicide treatment, piling, prescribed burning) to be used. However, all linear cultural sites (roads, trails, fencelines, etc) require the following protection measures:
  - a. **Roads and trails (system and non-system).** May be used for travel and moving equipment in the historical direction of travel as long as travel remains within the boundaries of the historical road bed/tread and as long as man-made features (drainage features, retaining walls etc.) are avoided. Roads, trails and other linear man-made features may only be crossed at right angles as follows:
    - i. 2018 R5 PA App. E. 2.1 (a) Linear sites (e.g., historic trails, roads, railroad grades, ditches) may be crossed or breached by equipment in areas where their features or characteristics clearly lack historic integrity (i.e., where those portions do not contribute to site eligibility or values).
      1. Crossings are not to be made at the points of origin, intersection, or terminus of linear site features.
      2. Crossings are to be made perpendicular to linear site features. ▪ The number of crossings is to be minimized by project and amongst multiple projects in the same general location.
      3. The remainder of the linear site is to be avoided, and traffic is to be clearly routed through designated crossings.
  - b. No material for burning may be piled on non-system roads or trails. On system roads and trails, piling is to be restricted to locations without man-made features (drainage features, retaining walls).
  - c. **Fencelines.** Fencelines are also linear sites/features and they are to be avoided from burning or damage from mechanical equipment until they have been recorded and evaluated.
6. **Access closures to prevent illegal OHV use.** Prior to fuels treatment implementation, access closure barrier methods (chunking, tank traps, fencing, creating vertical face slopes or greater than vehicles approach angles) and their placement must be coordinated with Heritage Staff. Evaluating sites for eligibility to the National Register of

Historic Places; mitigating impacts to sites; selecting different barrier locations; use of alternate barrier or closure methods; or downscaling of fuels treatment in that area may be required. To ensure that barriers proposed by Recreation Staff for each area can be implemented effectively without damage to historic properties these discussions should occur prior to implementing fuels reduction locally.

7. **Staging and Parking.** Staging and parking are restricted to Forest Service system roads and turnouts. Avoid causing damage to drainage features, retaining walls and other man-made features associated with roads.
8. **Changes in Project Activities.** Any changes in project activities require additional Heritage review and additional measures may be needed.
9. **Unanticipated discoveries.** If additional cultural resources are identified during project activities all work must stop in that area until a forest service archaeologist has been notified and the resource assessed.
- 1.

#### All Units

1. Leave shrub islands of various shapes and size in a random distribution to provide a natural appearance, while meeting fuel reduction objectives

#### Definitions

**Accessible** - Accessibility may be understood in terms of roads or as applied to ground-based equipment. Road accessibility occurs when a road exists closer than ¼ mile to a given treatment unit. An area is considered accessible to ground-based equipment whenever slopes do not exceed 50%, where slopes over 35% do not extend for more than 100 feet in length where a 150 foot endline cable can be stretched to reach after positioning equipment given the two slope and distance limitations.

**Activity Fuel** – Any hazardous fuel created from logging, felling, chipping, or from other forest treatment activities.

**Additional Timber** – Any merchantable sized tree that is designated and agreed to by the Contract Officer and Contractor after timber contract award.

**Aerial Removal** – Removal of woody material by helicopter.

**Average Spacing** – The average of the distances between all leave trees necessary to provide the desired number of leave trees per acre.

**Berm** - An outer border of the fire control line.

**(BMP) Best Management Practices**– A practice or combination of practices (as described in Water Quality Management for Forest System Lands in California, Best Management Practices, September 2000) determined to be the most effective,

practicable means of preventing or reducing pollution from non-point sources to a level compatible with water quality goals.

**Biomass** – Any portion of any tree, designated for cutting, which does not meet the utilization standards for merchantable material set forth in the contract. The anticipated product of this material is wood chips for fuel or mulch. This material includes all woody material of a merchantable size. Biomass is sometimes referred to a Miscellaneous Convertible Products (MCP).

**Brush (Shrub)** – All woody perennial plants at least 1.0 foot tall having permanent single or multiple stems originating at or near ground level. This includes, but is not limited to chemise, manzanita, sagebrush, deerbrush, buckbrush, snowbrush, whitethorn, chinquapin, dogwood, ribes and several varieties of oak. Black Oaks that are greater than 6.0 inches in DBH or 20.0 feet are not considered brush.

**CCF** – The unit of measure, representing 100 cubic feet, at which merchantable and biomass are sold through a permit system specified in this service contract (nominal conversion rates of one cord or 500 board feet.

**Cable Systems** – A yarding system employing cables and winches in a fixed position.

**Chip Material** – Any woody chunks from bole wood, limbs, brush and other forest debris that exits the chute of a blade and drum type chipping machine.

**Commercial Item** – Consistent with the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

**Conifer Tree** – A live tree with needle shaped or scale like leaves.

**(CO) Contracting Office** – The Government representative that has the authority to enter into, administer, or terminate contracts and make related documents and findings. Contracting officers may bind the Government only to the extent of the authority delegated to them. Information on the limits of the Contracting Officer's authority shall be readily available to the public and Agency personnel.

**(COR) Contracting Officer's Representative**– Any individual designated in writing by the Contracting Officer to assist the CO in the administration of a specific contract. The written designation defines the limitations of the COR's authority which usually does not include the authority to change the contract.

**Control Areas** – Equipment exclusion zones delineated by flagging for the purpose of protecting sensitive plants, heritage resources or other protected resources. In some cases, these areas may be exempt from treatment, yet in others, the specified level of treatment is to be met without the use of ground-based equipment.

**Crown** – The part of a tree or woody plant bearing live, or dead, branches or foliage.

**Cull** - Stems, bark, logs or branch material 10 inches or less and other material not meeting either merchantable or non-merchantable log standards that accumulates at the landing as the result of the operations.

**Cultural and Threatened and Endangered (T&E) Sites** - Locations where special protection is required to preserve and protect cultural values and species of plants or animals listed on the T&E list. See also "Control Area."

**Culvert** – An open or enclosed drainage structure to facilitate water drainage across or beneath a roadway.

**Cut Tree** – A tree that is designated by the Forest Service for cutting. Designation method will be stipulated by statement of work.

**Damaged Beyond Recovery** – A tree or brush having a defect or deformity, either genetic or mechanical, evidenced by dead or broken tops, stripped crowns, unnaturally leaning, butt scars or severe bark damage exceeding 50% of the bole circumference.

**Dead** - More than 50% of the crown of pine species or 90% of the foliar crown of cedar and oak species is absent of needles or leaves.

**Debris** – see cull.

**Defense Zone** – Within the Wildland Urban Interface, the first 300 feet from roads, structures and non-Forest Service lands.

**Deferred Area** – Non-treatment areas within the work unit boundaries. The deferred areas are designated with flagging. These areas may be down logs, rock outcrops, vegetated areas or others areas stipulated in the statement of work or located on statement of work maps.

**Designated Trees/Vegetation** – Trees/Vegetation to remain after treatment will be designated by description as stipulated in the statement of work.

**Developed Areas** – Within 200 feet of any location that is accessible to non-off highway motorized vehicles.

**Diameter** – Other vegetation (not trees) is measured 1 foot above ground.

**(DBH) Diameter at Breast Height** - The diameter of a tree measured at a point 4.5 feet above the point where the tree bole meets with the ground on the uphill side of the tree.

**(DSH) Diameter at Stump Height** – The diameter measured on the outside bark at a point 6.0 inches above ground level on the uphill side of the tree or stump as specified in the statement of work.

**Diseased** – Any tree or any brush with a mistletoe rating of 4 or greater on the Hawksworth 6-class dwarf mistletoe rating system or observable insect infestation to a level that effectively girdles the bole.

**Down Log** – Woody material exceeding 12.0 inches in diameter and 20.0 feet, in length lying on the forest floor or as stipulated in a statement of work.

**Down Woody Material** – Down logs, slash, branches and stumps.

**Drip Line** – The area directly beneath the crown of a tree or shrub.

**Duff** – The layer of decomposing organic matter found on top of forest soil and composed mainly of leaves and conifer needles.

**Mistletoe** – A parasitic plant disease occurring on conifers which infects the branches and bole of the tree. Aerial shoots and basal cups; excessively swollen branches or boles are positive indicators.

**Dying** - More than 50% of the crown of pine species or 90% of the foliar crown of cedar and oak species exhibiting a distinct alteration in normal foliar color of needles or leaves.

**Ephemeral Stream** – A stream or portion of a stream that flows only in direct response to precipitation. It receives little or no water from springs and no long-continued supply from snow or other sources.

**Flagging** – Strips of vinyl, plastic or other like material tied to objects for a purpose to be defined within the statement of work.

**Fuelbreak** – A break in existing fuel character to that changes fire behavior.

**Grapple Pile** – Piling slash both existing and created and other undesirable vegetation in piles or windrows with a tracked machine that has a boom capable of reaching (a minimum of) 15 feet and has a grapple mounted the end of the boom. Pile size will be stipulated by statement of work.

**Grinding** – Operation similar to chipping, except that the implement is outside the main body of the attachment or prime mover. This operation often results in coarser chips after treatment.

**Hardwood Tree**- A broad-leaved tree which usually has a single well defined trunk or attains a height greater than 20 feet. Includes, but not limited to, species such as black oak, canyon live oak, chinquapin, and other oak species. Sprouting hardwood species may be in the form of multi-stemmed clumps.

**Hazard** - The existence of a fuel complex that constitutes a threat of wildfire ignition, unacceptable fire behavior and severity, or suppression difficulty.

**Hazard Reduction** - The planned treatment or manipulation of naturally growing vegetation or any other flammable material for the purpose of reducing rate of spread and output of heat energy from any wildfire occurring in the area treated.

**Hazard Tree** – Any tree that is dead, dying, a fire threat, or otherwise deemed unsafe or has the potential hit roads, trails, utility lines, structures, facilities, improvements or private property.

**Inaccessibility** – Inaccessibility may be understood in terms of roads or as applied to ground-based equipment. Road inaccessibility occurs when no road exists closer than ¼ mile from a given treatment unit (see **Accessible**). An area is considered inaccessible to ground-based equipment whenever slopes exceed 50%, when slopes over 35% extend for more than 100 feet in length, or where a 150 foot endline cable cannot be stretched to reach after positioning equipment given the two slope and distance limitations.

**Inner Gorge** – A stream reach bounded by step walls that terminates upslope to a more gentle topography.

**Intermittent Stream** – A stream or portion of a stream that, in general, flows during wet seasons and is dry during dry seasons.

**Intervisible** - Mutually visible, or in sight, the one from the other, as stations.

**Jackpot** - Concentration of slash or natural fuels, heavier than the surrounding areas.

**Key Personnel** – any individual or individuals authorized to make or enter into agreements with the Government under the contract as designated in writing by the Contractor and accepted by the CO.

**Ladder Fuels** - Fuels that provide vertical continuity between the ground and the tree crowns, creating a pathway for surface fire to move into the overstory tree crowns.

**Landing** – Area used to stage and load forest products just prior to removal from the project area.

**Leave Trees** - Trees designated to remain after treatment. May include conifers, hardwoods, or hardwood clumps with less than or equal to three sprouts of common origin.

**Leave Tree Group** - A group of trees as stipulated by statement of work designated to remain after treatment. Groups may contain more than one species of tree. Examples would be a) two healthy ponderosa pine trees growing immediately adjacent to one another. b) a vigorous group white oak trees exhibiting a wide horizontal growth pattern. c) a large old pine with a healthy oak tree growing near its base. The project inspector can show examples of suitable tree groups on the ground.

**Leave Shrub Clump** - A group shrubs as stipulated by statement of work designated to remain after treatment.

**Litter** - Needles, duff, twigs, cones and leaves.

**(LOP) Limited Operating Period**– The period of time in which no project or noise generating activities may occur. LOP locations and periods will be stipulated in the statement of work.

**(LCR) Live Crown Ratio**– The live crown ratio is the percent of the total height of a tree that has branches with live, green vegetation present. Epicormic branches, which are small branches originating from the main tree stem after the tree has been suddenly exposed to sunlight, do not count toward the LCR. One-sided crowns only count as half. Openings in the crown need to be deducted from the total.

**Lop** - The severing of limbs from the bole of felled trees at the point where the limb attaches to the bole.

**Material** – Any logs, vegetation, slash or debris.

**Mastication** – The mulching or grinding of vegetation utilizing steel or rubber track or wheel mounted machines using drum type or boom fixed heads with grinding heads possessing either fixed position or free moving chewing teeth.

**Meadow** – Perennially or seasonally saturated soils that support vegetation dominated by grasses, sedges, rushes and other flowering plants. Meadows will be stipulated by statement of work.

**Mechanized Harvesting Machine with Hydraulic System** – Machines such as, but not limited to, chippers, feller/bunchers, harvesters, forwarders, stroke delimiters and masticators that are powered by an internal combustion engines and require hydraulic systems in order to perform.

**Mechanized Equipment with High-speed Rotary Head** - Machines such as, but not limited to, chippers, harvesters, and masticators that are powered by an internal combustion engines and utilize fast turning or spinning drums, disks, heads or other similar method in order to manipulate vegetation.

**Merchantable Logs** - Merchantability standards will be calculated using National Forest Log Scaling Handbook, FSH 2409.11, as amended or as otherwise stated in the statement of work.

**Merchantable tree** – A tree that is greater than 10.0 inches at diameter at breast height which is diameter at 4.5 above ground taken from the up-hillside of the tree.

**Mobilization** - The act of delivering all ordered personnel and equipment to the project area; including labor, material, overhead and profit. The price for mobilization shall be included in the proposed unit prices.

**Nest Stand** – Areas identified on the unit maps that require a Limited Operating Period from February 1 thru August 15. The nest stand is comprised of the best 30 to 60 acres of contiguous forested habitat around the known or suspected nest tree.

**Non-merchantable Logs** – Any log that does not meet the definition of merchantable.

**(PAC) Protected Area Corridor**—Areas identified on the unit maps that have generally less intensive treatments associated with them. PACs are selected by identifying the 300 most highly suitable spotted owl habitat acres containing, or adjacent to, the nest or territory center within a 1.5 mile radius of the known nesting site or territory center.

**Percent Cover** – Portions of the project area beneath the dripline of vegetation to be cut. Does not include reserve vegetation.

**Perennial Stream** – A stream or portion of a stream that flows throughout the year.

**Products** – Cut woody material that has a commercial value.

**Project Area** - The area being treated with prescribed fire and any escapes or spot fires resulting from the prescribed fire.

**(PI) Project Inspector**— Any individual designated in writing by the Contracting Officer's Representative to assist the CO in the administration of a specific contract. The PI is responsible for the project inspection for a specific statement of work. This person has contract administration experience and is qualified to conduct oversight and evaluations of the Contractor's operations. The PI provides technical expertise to the COR regarding operations conducted under the statement of work.

**Removal** – Complete removal of products from National Forest lands under the terms of this contract as stipulated by statement of work.

**Reserved Trees or Reserved Areas** - Individual species of trees or certain areas within a treatment unit that the contract or COR designates are reserved from treatment.

**Residual or Retention** – a tree or snag remaining after an intermediate or partial cutting of a stand.

**Riparian Buffer** - For prescribed fire purposes, a 50-foot area extending upslope on each side of a stream channel.

**(RCA) Riparian Conservation Area**— A zone established for the protection of riparian areas in which the use of mechanical equipment is restricted. RCA's shall be identified and restrictions stipulated by statement of work.

**Riparian Vegetation** – Vegetation common to riparian areas. Riparian areas and required vegetation treatments will be stipulated by statement of work.

**Sawlog** – A log that meets minimum regional standards of diameter, length and defect, intended for sawing.

**Saturated Soils** - means that site conditions are sufficiently wet that timber operations displace soils in yarding or mechanical site preparation areas or displace road and landing surface materials in amounts sufficient to cause a turbidity increase in drainage.

**facilities**



**Site Preparation** – Piling, chipping, masticating and removal of existing vegetation and woody debris (slash) in preparation for tree new tree establishment that may include planting, coppice or natural regeneration methods.

**Skid Trail** – A travel way for ground based equipment to move or process forest material.

**Slash** – All woody material accumulated on the forest floor or as a result of previous and current activities. This includes, but not limited to brush (shrub) trimmings, tree boles, stems, tops, and branches that are larger than 1 inch in diameter and longer than 3 feet or as stipulated by statement of work.

**Snag** - Any standing dead or living tree that has 10 percent or less live crown greater than 15 inches DBH and at least 40 feet tall or as stipulated by statement of work.

**Spike** - Sharp pointed top or limb of living or dead vegetation.

**Springs and Seeps** - Perennially or seasonally saturated soils that may have a flow of water that support vegetation dominated by grasses, sedges, rushes, willows or other riparian vegetation. Springs and seeps will be stipulated by statement of work.

**Stream Channel** - That area influenced by high water at the time of the year with the highest flow as stipulated by statement of work.

**(SMZ) Streamside Management Zone**– Synonymous with Riparian Conservation Areas.

**Structure** - Something that is constructed **or** arranged in a definite pattern of organization. This may include, but is not limited to, buildings, roads, fences, utility lines, non-mobile objects and other forms of infrastructure.

**Subcontracting** - the transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

**Subsoiling** - A mechanical treatment which, using a narrow tool, loosens compacted soil through the full width and depth of compacted soil layer without inverting the soil horizon.

**Thinning** – Removal of excess trees (conifer and hardwood) as stipulated by statement of work.

**Tillage** – the thorough loosening of soil to the width and depth of the compacted layer or to a maximum depth of 6.0 inches with topsoil remaining substantially in place and with minimal sub-soil material brought to the surface.

**Tractor** – Ground based wheeled or tract mounted machines equipped with dozer blades, grapples, cable winches, brush blades, chippers, etc, used to support work associated with this contract.

**Tractor Pile** – Pushing slash (existing and created) and other undesirable vegetation into piles or windrows using a track mounted machine with a brush rake or equivalent apparatus.

**Treated** – Forest vegetative material that is cut, chipped, piled, masticated or yarded for the purposes of reducing hazardous fuels in a prescribed area.

**Tree** – A woody perennial plant, typically large and with a well-defined stem or stems carrying a more or less definite crown. All conifers greater than 1.0 feet tall, and any oaks greater than 6.0 inches diameter at stump height (DBH) or 20.0 feet tall, are considered trees under this statement of work.

**Tons/Acre** - Unit of measurement of fuel, usually but not always, of dead and down woody debris (slash). Tons/Acre is determined by using a Photo Series, such as USDA Forest Service GTR-PNW 51 (1976). These documents are available for review by the Contractor by contacting the issuing office.

**Unit** – An individual treatment unit delineated on the ground and stipulated by statement of work.

**Water Bar** - An earthen barrier constructed to divert water runoff and control soil erosion.

**Watercourse** – Any well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil, including but not limited to, perennial, intermittent and ephemeral streams.

**Wildland Fire** - An escaped prescribed fire is a wildland fire. The Burn Boss determines that an escape exists based on either, or both of two criteria: (1) When containment of a slopover requires personnel or equipment exceeding that specified in the Prescribed Fire Plan; (2) When environmental conditions or fire behavior exceeds that specified in the Prescribed Fire Plan and the Burn Boss determines that an escape has or is likely to occur.

**(WUI) Wildland Urban Interface**– The area where the urban development meets and intermingles with undeveloped land.

**Wildlife Island** – An area left untreated to provide cover and screening habitat for wildlife species as stipulated by statement of work.

**Wildlife Trees** - Standing dead or live trees left for nesting, feeding, perching and shelter for birds and mammals. Trees may be marked with paint or designated with wildlife tag. Wildlife trees may also be stipulated by statement of work.

**Woodrat Nest** - A ground nest used by woodrats. It is constructed of dried vegetation, usually sticks and other organic debris.

### **Contractor-Furnished Equipment**

Contractor shall furnish the following tools for tree release to meet OSHA requirements:

1. All necessary cutting tools – including chainsaws, brush trimmers, loppers, shears, gas, oil, and maintenance supplies – and accompanying safety equipment as well as equipment required by the Fire Plan.

Equipment shall be furnished on a fully-operational basis, of modern design, and in good operating condition, with a competent, fully qualified operator.

The Contractor shall furnish all fuel, lubricants, and personnel necessary for the operation of the equipment. All repairs, service and replacements are the responsibility of the Contractor and shall be at the Contractor's expense. If, during the contract period, the equipment requires repairs before operations can continue, it shall be the responsibility of the Contractor to complete such repairs.

2. Inspection equipment such as but not limited to: Measuring tape, compass, and flagging.

3. Drinking water for workers and sanitary facilities.

4. All necessary safety and personal protective equipment (PPE)

5. Items needed to ensure that tools, boots, and clothing are free of mud, debris, and other material that may harbor and spread invasive weeds.

Unless otherwise specified herein, the Contractor shall provide all labor, transportation, materials, and equipment necessary to perform the work as described herein.

## **INSPECTIONS AND ACCEPTANCE**

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### **Government Inspections**

Government inspections are for the purpose of satisfying the Government that the services are acceptable and do not relieve the Contractor of the responsibility for maintaining quality control.

The Government or designated inspector will conduct all inspections. The Contractor (or designated representative) is encouraged to be present to observe inspections. Summary results will be made available on request.

***Compliance Inspections.*** Visual compliance inspections will be made on a periodic basis. Such inspections are not final and do not constitute acceptance by the Government.

***Final Inspections.*** Final (formal) inspections for payment will be made on completed items only. Contractor shall request final inspections in writing and give the Government at least two working days advanced notice. Inspections will be completed within four working days after the notice is received. If the work is not ready for inspection at the

time specified by the Contractor, the cost associated with the inspection attempt may be charged to the Contractor.

***Disputed Inspection.*** The Contractor may request re-inspection without rework if the results are unacceptable. Re-inspection must be requested in writing within 48 hours after receiving written notice of the inspection results. Re-inspection will be accomplished within five working days after receipt of the contractor's written request.

The same sampling and inspection procedures will be used, but new samples will be taken. The inspection pattern will be shifted so that new samples will not overlap previously inspected samples. Results will be rounded to the nearest whole percent.

If re-inspection results are within five percentage points of the first inspection, the original inspection result will be used in determining acceptability and payment. If re-inspection results are greater than five percentage points above or below the first inspection, the re-inspection results will be used.

If the re-inspection results are within five percentage points of the first inspection, the Contractor shall pay the actual costs of the re-inspection.

***Re-inspection after Rework.*** Where rework after a failed inspection may improve the inspection results, the Contractor may rework the area and request (in writing) a second inspection. The Government will charge to the Contractor the cost of this additional inspection. Re-inspection will be accomplished within five working days after the notice is received. The results of the second inspection will be final, and no further rework will be permitted. Areas not ready for re-inspection at the time specified by the Contractor will not be re-inspected, and the results of the first inspection will be final.

## **Specific Inspection Procedures**

### **Sampling**

#### **Contractor Inspection Requirement**

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the supplies or services furnished under this contract conform to contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any Government inspection and testing required in the contract's specifications, except for specialized inspections or tests specified to be performed solely by the Government.

### Inspection of Services--Fixed-Price

(a) Definitions. "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government, covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities, and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform to contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by re-performance, the Government may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service or (2) terminate the contract for default.

### Informal Visits

The Government and/or appointed representative may visit the work units to observe the Contractor's work in progress.

### Contractor's Formal Inspections

The Contractor shall establish an inspection system acceptable to the Government. The Contractor's inspection system must be submitted and accepted by the Contracting Officer prior to issuance of the Notice to Proceed. The primary purpose of the Contractor's inspection is for assurance of quality control. The Government may, however, accept the Contractor's inspection for unit acceptance either wholly or in part.

The Contractor's inspection shall comply with the following:

- a. Shall be systematic in application.
- b. Shall yield an inspection of at least one percent of the area.
- c. Shall be documented on a Contractor designed form.
- d. Shall be timely in performance.
- e. Shall address all the work specifications.
- f. Shall show a method of determining quality attained.

Each unit shall be inspected separately and the results of one unit shall not be averaged with those of other units.

The Contractor's inspection system shall consider, as a minimum, the following:

1. Vegetation Treatment Specifications
2. Brush cutting specifications
3. Slash Treatment Specifications
4. Forest Disease Control
5. Resource Protection
6. Fire Precautions

### Government Inspections

If the results of the Contractor's inspections cannot be verified by Government inspection, the Government may elect to conduct all subsequent inspections. If the Government does assume the burden of the Contractor's inspections, there will be an inspection charge of \$10.00 per acre released, deducted from the Contractor's payment.

#### Failure to Comply with the Specifications

Failure to comply with the specifications will require rework of the area at Contractor's expense. If the quality of future work is not improved to meet specifications within two consecutive work days after Contractor's receipt of notice, the Contractor's right to proceed may be terminated. Failure of the Contractor to correct unsatisfactory conditions or continued failure to follow contract specifications will be considered non-compliance with terms of the contract and may be grounds for contract termination.

#### Unit Acceptance

The Contracting Officer may accept units based on the results of the Contractor's inspection, providing Government's observations agree with Contractor's inspection results. However, the Government may perform supplementary or complete inspections. Government inspections will conform to the same criteria as those specified for Contractor's inspection. If Government inspections are performed, the Government inspections will take precedence and will be used for acceptance or non-acceptance of the work.

Each payment unit will be inspected separately, and inspection results will not be averaged with those of other payment units.

#### Re-inspection Charges

Re-inspection charges of \$10.00 per acre or for entire acreage of all re-work areas on the second and subsequent inspections will be deducted from payment due to the Contractor.

#### **Method**

The Contracting Officer or their Representative will make visual inspections while work is in progress for compliance with terms of the contract.

#### **Determination of Acceptability**

Work on this contract will be deemed acceptable when the Government's visual inspections show acceptable performance and sample plot data indicate a work quality of 90% or higher.

## **DELIVERIES OR PERFORMANCE**

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### **Work Timing**

The Contractor shall begin work within \_\_\_10\_\_\_ calendar days after the effective date of the Notice to Proceed and shall prosecute the work at a rate that will result in completion of all work within the following time frame:

Item No.	Estimated Start Work	Contract Time (Calendar Days)
All	May 15, 2022	730

Failure to begin work on schedule will make the contract subject to immediate termination for default.

Delays due to normal adverse weather, weekends, and holidays have been included in the calculation of contract time. The Government reserves the right to set the priority of items or sub-items.

If this solicitation has more than one numbered item, award of more than one item to one contractor will not change the start work dates or the amount of contract time; times will run concurrently.

### **Winter Shutdown**

When winter weather sets in and the continuation of work is impractical, the Contracting Officer may authorize a total suspension until such time as work can proceed. During the period of total suspension, the calendar days elapsed will not be charged against the contract time.

## **CONTRACT ADMINISTRATION DATA**

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### **Pre-work**

*Pre-work conference.* Before work begins on service contracts, a pre-work conference is normally held to discuss the contract – especially the specifications, labor provisions, plan of work, and selected standard clauses. The pre-work meeting should be attended by an officer of the firm or someone designated in writing to act on behalf of the firm. The pre-work meeting may be waived at the discretion of the Contracting Officer.

*Notice to Proceed.*



A.  No work may begin on this contract until the Contracting Officer has issued a Notice to Proceed.

## **G.2 Measurement**

### *Methods of Measurement.*

Acreage was measured by dot grid method from aerial photographs.

Acreage was measured on a horizontal plane using compass and chain.

Acreage was measured on a horizontal plane using a Global Positioning System.

Linear measurements have been taken with a wheel on the centerline of the trail or road.

Estimated acreage: Actual acreage worked will be measured by the method(s) indicated above.

*Re-measurement.* Unless otherwise indicated by this contract, the contractor may request re-measurement of any quantities in Part B, when the units are acres or any linear measurement. The request must be made in writing and must be made within 10 calendar days of completing work on the unit in question. If re-measurement indicates a variance of five percent or less from the stated quantity, the Contractor shall pay for the actual cost of re-measurement and no adjustment will be made in the quantity as stated in Part B. If re-measurement indicates a variance more than five percent from the stated quantity, payment will be based on the re-measured quantity, and the Contractor will not be liable for the costs of re-measurement. All re-measurements will be done by the Government. Re-measurement of acreage will be done with two people using a hand compass and ground measurement or by means of a Global Positioning System. This clause is not applicable to quantities listed as estimated quantities.

## **Payment**

*Payments and Deductions.* Payment will be made for fully acceptable work at the prices bid in the schedule of items. In the event of extended non-work periods because of adverse weather, the Contracting Officer may authorize progress payments for partially completed sub-items on a case-by-case basis. In accordance with the inspection clause, payment may be made for less than fully acceptable work at a reduced price. Other exceptions are noted below:

### Calculation of Payment

a. When inspection percentage is 90 percent or above, payment will be made at 100 percent of the item price.

b. When inspection percentage is 80 to 89 percent, payment will be made at that percentage of acceptability.

c. Where quality falls below the Minimum Acceptable Quality level of 80 percent, the Contractor may be required to rework, and actual damages incurred by the Government as a result of the rework may be assessed. Repeated failure to plant at the 80 percent level or above may be grounds for termination for default. As a minimum, actual damages will be assessed on those acres not satisfactorily planted. Actual damages include, but are not limited to, cost of seedlings, site preparation and resurvey.

#### *Partial Payment*

Partial payments may be made if requested by the Contractor provided that payment will only be made upon completion, inspection, and acceptance of a complete unit.

- a. Partial payments will be made no more often than every 14 calendar days.

## **SPECIAL CONTRACT REQUIREMENTS**

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### **Emergencies**

*Fire Plan.* See attached Fire Plan.

*Area of Responsibility for Fire.* Unless otherwise noted elsewhere in the contract, the following define the limits of a contractor's area of responsibility for fire under the terms of the Fire Plan:

- (a) Trail Maintenance - 50 meters on either side of the centerline
- (b) Silviculture Projects - 70 meters around the perimeter of the unit being worked in
- (c) Special for this project:

### **Quality Control Plan**

The Contractor shall conduct inspections on all units in accordance with his/her Quality Control Plan (QCP) and in accordance with Specific Inspection Procedures identified in this contract. The Contractor's Quality Control Plan shall be submitted and accepted by the Government prior to any work starting.

### **Safety**

The Contractor shall furnish and have approved by the Contracting Officer in writing prior to the beginning of work, a safety plan that specifically states what provisions the Contractor proposes to take for the health and safety of all employees, including subcontractors and rental equipment operators. The program shall be site specific and provide details relevant to the work to be done, the hazards associated with the work, and the actions that will be necessary to minimize the identified hazards.

The contractor shall comply with all Federal, State, County and local safety laws policies, regulations, standards and requirements.

### **Public Safety**

Contractor is responsible for warning the public of dangerous operations occurring at the job site, especially along roads and trails. When Contractor operations occur adjacent to or on roads and trails open to public travel, a project specific Traffic Control Plan shall be agreed to in writing by the Contractor and the Government prior to commencing operations.

The Contractor shall supply barriers, guards, signs, flag-persons or security personnel to ensure public safety throughout when operations may affect vehicular and pedestrian traffic flow. Traffic control devices must be in place during all periods of active operations and must be removed or covered during all periods of inactivity including end of shift. The contractor shall furnish and install, maintain and, upon completion of the work, promptly remove all signs, warning devices and other materials used in the performance of this work. All signs, signals, barricades, use of flag-persons, and other traffic control and public safety devices shall conform to the general requirements set forth in the Manual of Uniform Traffic Control Devices (MUTCD) and the latest edition of Standard Highway Signs and Standard Alphabets for Highway Signs and OSHA Construction Industry Standards (29CFR Part 1926), Subpart G, Signs, Signals, and Barricades.

### **Road Maintenance**

All gates that are opened to access units need to be closed and locked after passing through. All cut vegetation shall be kept within unit boundaries. Any cut vegetation falling into ditches, road banks, landings, waterways, or adjacent units shall immediately be removed. No payment shall be made for items not meeting this specification.

Use of any roads, routes, skid trails or temporary roads by the Contractor under the terms of this contract shall be subject to approval by the Government; such approval shall be obtained by the Contractor prior to opening or use.

Prior approval must be obtained from the Government to close NFS roads, recreation sites and trails that may be impacted by Contractor's operations. The request must be obtained at least 30 calendar days in advance of the planned operations. Approval of the closure request is not guaranteed or implied. Once approved, the Contractor shall post a public notice in a local newspaper 14 calendar days in advance of the closure and provide such notice to the Government.

Contract work shall not unnecessarily impede road access to all road users unless prior approval has been authorized by the Government.

Forest system roads used by the Contractor shall be left in as good or better condition, at the start of the project and during the life of the project as any Forest Service road improvements are put in place, once all activities have been completed. If work

performed by the contractor has caused damage to roads, or road infrastructure such as culverts etc., the contractor will be held responsible for repair and or replacement of materials.

All activity-based material created from project operations shall be removed from culverts and ditches leading into culverts so that those culverts remain functional.

All non-leafy material thrown onto Forest roads and trails during the course of work shall be immediately removed to allow for the safe passage of traffic.

### **Superintendence by Contractor**

The name and the specific authorities of the foreman or superintendent must be designated in writing to the Contracting Officer. The Contractor may use his/her own prepared letterhead stationery or a "Designation of Contractor's Representative" form available from the Contracting Officer. If the Contractor or the designee is not present when work is being performed on the contract, a Suspend Work Order may be issued with contract time continuing to run. The Contractor shall have a person on-site that is fully conversant in the English language.

### **Archaeological and Historic Sites**

Location of known archaeological, historic, or prehistoric materials – such as Native American sites or artifacts and/or historic mining, logging, or fur trapping remains protected by the American Antiquities Act (16 USC 433)--will be identified for the contractor before work commences.

### **Spill Plan**

If the total oil or oil products storage exceeds 1,320 gallons or if any single container exceeds a capacity of 660 gallons, the Contractor shall prepare and implement a Spill Prevention and Countermeasures (SPCC) Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer. The Contractor, under the direction of the Contracting Officer, or in the absence of said officer, acting independently, shall immediately take action to contain and clean up, without expense to the Government, all petroleum products spills on or in the vicinity of the project which are caused by the Contractor's employees directly or indirectly as a result of contract operations. The Contractor may be held liable for all damages and costs of additional labor, subsistence, equipment, supplies, and transportation deemed necessary by the Government for the containment and cleanup of petroleum products spills caused by Contractor's employees or resulting from contract operations. The Contractor shall immediately report all petroleum products spills to the Contracting Officer.

### **Equipment Cleaning**

All off-road equipment used on this project shall be washed before moving into the project area so that the equipment is free of soil, seeds, vegetative material, or other debris that could contain or hold seeds of noxious weeds. "Off-road equipment" includes all logging and construction equipment and such brushing equipment as brush hogs, masticators, and chippers; it does not include log trucks, chip vans, service vehicles, water trucks, pickup trucks, and similar vehicles not intended for off-road use.

Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris. Disassembly of equipment components or specialized inspection equipment is not required. Contractor shall notify the Contracting Officer at least five days in advance of moving equipment in so that arrangements can be made for inspection.

If the project area is known to contain noxious weeds, the equipment shall be cleaned before moving to other Forest Service system lands which do not contain noxious weeds.

### **Final cleanup**

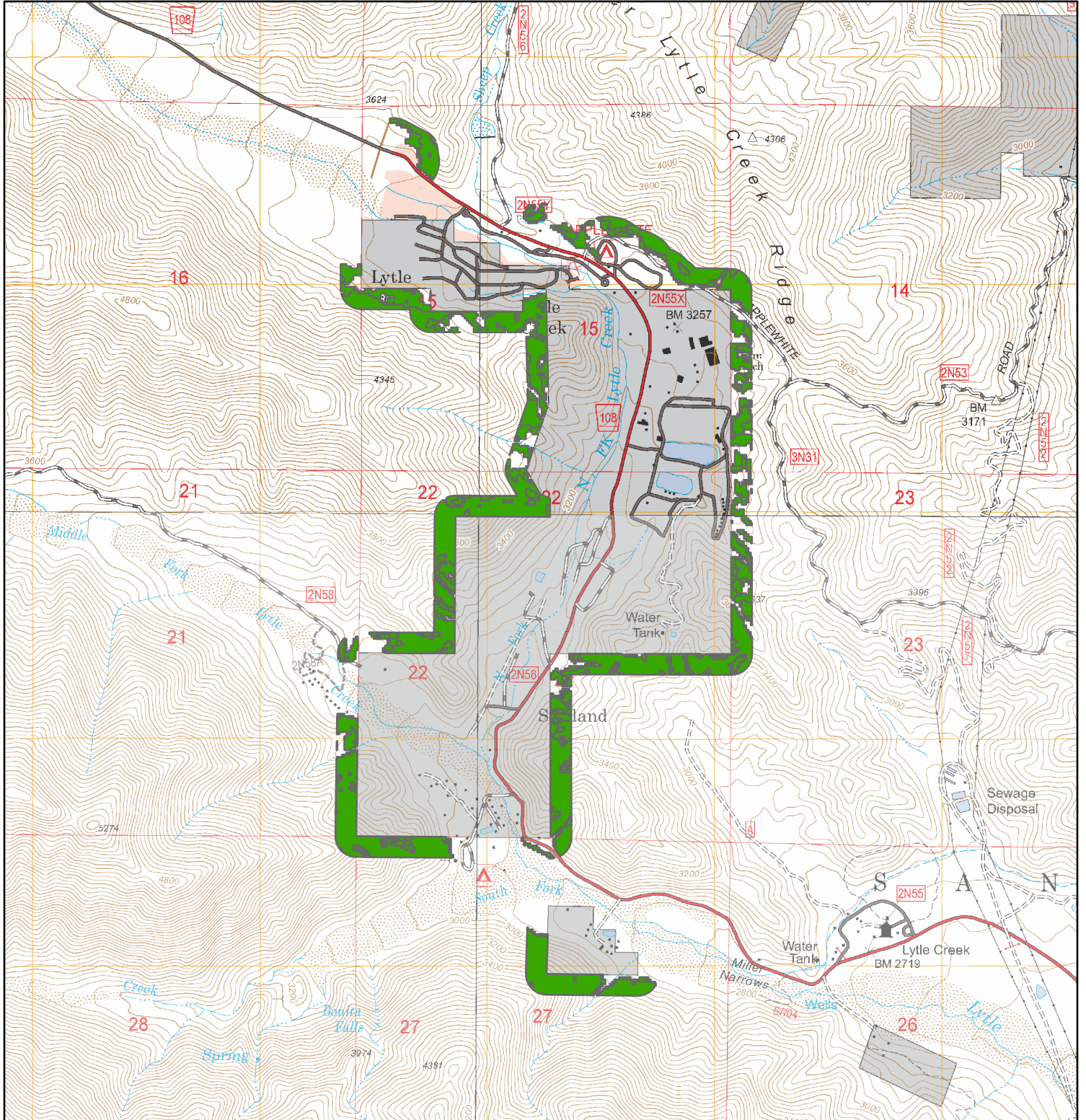
Before final acceptance, all areas occupied by the Contractor in connection with the work shall be cleaned of all contractor's rubbish, excess materials, temporary structures, and equipment, and all parts of the work area shall be left in a neat and presentable condition.

### **Certification of Compliance**

Contractor shall certify compliance with specific fire precautionary measures included in the attached Fire Plan. The certification shall be made prior to commencement of work and shall be updated if at any time during performance the conditions change. The Government may conduct verification inspections to ensure Contractor's compliance.

### **Camping**

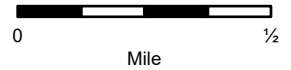
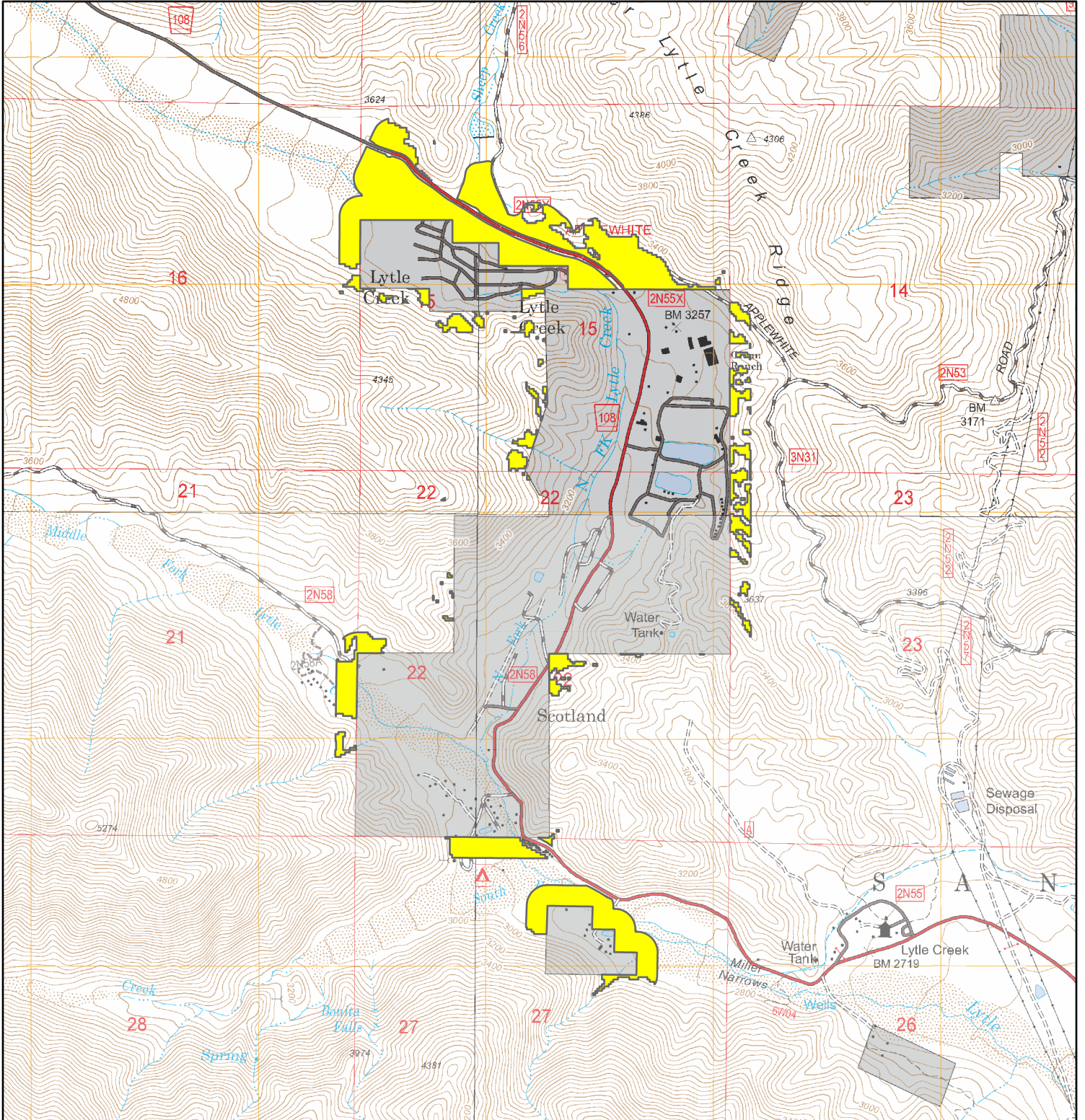
Camping is not permitted in US Forest Service campgrounds. Contractor [ ] will [X] will not be permitted to camp elsewhere on US Forest Service land. Camping on Forest Service land is not a right; permission may be revoked for failure to comply with the terms of the permit. Any non-compliance will result in suspension of work until compliance is achieved.



Legend

- Treatment Area: Community Buffer / Hand Treatment / Slope 35% and greater / 184 acres
- Non-National Forest System Land





Legend

- Treatment Area: Community Buffer / Mastication / Slope 0%-35% / 150 acres
- Non-National Forest System Land



