

Appendix A: Specific Treatment Guidelines and Design Features

Wildlife and Botanical Resources Design Features

Avoidance and Minimization Measures: The following mitigations are highlighted to assure that treatments meet other needs as defined in the Forest Plan.

1. All TEPCS plant populations within the project area will be flagged with a 50 foot buffer prior to any ground disturbance and monitored during implementation to ensure avoidance. The Forest Botanist will be notified 30 days prior to treatment initiation to allow enough time to flag all sensitive populations.
2. Masticating or crushing will not take place in areas with sensitive plants.
3. All equipment staging areas and burn pile areas will be located away from known areas with invasive species and sensitive species occurrences.
4. Dense shrub vegetation will be left on the road to prevent off highway vehicle access.
5. Snags will be retained at 2-3 per acre for those snags greater than 16 inches in diameter.
6. The project area will be monitored post-implementation, and if/when problem areas arise, remedial and preventative actions would be taken as appropriate such as illegal OHV trails and invasive species removal. Coordination with special use permit holders, public education, and signing would be used as appropriate.
7. To limit the spread and establishment of invasive plant species into the project area, all off-road heavy equipment used during project implementation will be free of noxious and/or invasive weeds and seeds before entering the project area. Vehicle washing guidelines will be implemented for all ground disturbing activities.
8. Post-treatment surveys for noxious weeds will be conducted monthly or as needed, to determine presence of invasive species. Any new populations of noxious weeds will be immediately treated under the direction of the Forest Botanist.
9. All appropriate BMPs shall be implemented to minimize damage to surface soil structure and to reduce potential for erosion and sediment transport to drainages due to project activities.
10. Any work likely to cause disturbance (i.e. mastication, crew work) during the breeding season (March 15 – September 1) for migratory birds will require a qualified biologist to conduct a pre-work nesting bird survey within or adjacent to potentially suitable habitat for nesting birds. Should any breeding/nesting birds be observed, the nesting area will be flagged and avoidance measures will be implemented in coordination with the district wildlife biologist.
11. To protect known populations of Forest Service Sensitive plants, populations will be flagged and avoided with a 50 foot buffer. The forest Botanist will be notified 30 days prior to treatment initiation to allow enough time to flag all sensitive populations.
12. Any heavy equipment staging areas and access points will be rehabilitated and blocked with large boulders, logs etc, after project completion. Rehabilitation would include returning the ground to natural contours, implementing decomposition and erosion control measures as needed, and covering bare soil with slash, chips, pine needles, or cut brush as necessary.
13. A combination of natural barriers (rocks, logs, etc.), vegetation screening, and fencing will be used to prevent/discourage illegal vehicle activity during and after the project treatment. Fire Prevention Technicians and other staff would monitor the area, and

if/when problem areas arise, remedial and preventative actions would be taken as appropriate.

14. All equipment staging areas and burn pile areas will be located away from both known areas with Forest Service sensitive plants and invasive species occurrences.
15. Livestock will not be used as part of this project.
16. Wildlife encountered during implementation of the project work will be given every opportunity to vacate the area prior to initiating work. For example, all piles of vegetation will be shaken with rakes, hand tools or other appropriate method to allow wildlife to escape prior to moving, treating, etc.
17. If trenches, holes or other open areas are left open at night, then they will either be covered or a log, branch etc will be placed in the open trench with the edge reaching to the top of the trench to act as an escape route for wildlife.

Non-Native Invasive Weeds Design Features

1. The staging areas and crew size will be as small as possible to reduce disturbance and minimize the risk of weedy, non-native species establishing and spreading. The staging area will be clearly defined.
2. All off-road heavy equipment used during project implementation will be free of noxious weeds and seeds or invasive exotic weeds and seeds before entering the project area.
3. Where mastication is used, cheatgrass eradication must be carefully followed.
4. Invasive species such as cheat grass must be manually removed both pre and post implementation.
5. If equipment has operated in areas identified as containing target invasive plant species, all equipment, and tools used at that site must also be washed AFTER work has been completed.
6. Holder shall certify in writing compliance with the terms of this provision prior to each start-up of operations.
7. Any new infestations of invasive species in the work area or on the access route shall be promptly reported to the Forest Botanist.
8. Upon request, the Forest Botanist can provide a current list of invasive species of concern.

Equipment Washing Guidelines

To minimize the potential for spreading and/or introducing invasive plants, the following precautionary measures will be followed:

1. All equipment and machinery except trucks, vans, pickups, and cars used for daily transport of personnel will be cleaned prior to entering Forest Service land. This includes wheels, undercarriages and bumpers. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer, a landfill, or other facility authorized to accept such rinse water.
2. Holder shall notify Forest Service at least 2 working days prior to moving each piece of equipment on to National Forest Land, unless otherwise agreed. Notification will include vehicle washing information. Upon request of Forest Service, arrangements will be made for Forest Service to inspect each piece of equipment prior to it being placed in service.

3. Since cheat grass is so common on site, all equipment and tools used at that site must also be washed AFTER work has been completed.
4. Holder shall certify in writing, compliance with the terms of this provision prior to each start-up of operations.
5. If any new infestations of invasive species, identified by either Permit holder or Forest Service Staff, on National Forest land in the work area or on the access route shall be promptly reported to the other party.
6. Equipment includes all machinery except trucks, vans, pickups, and cars used for daily transport of personnel.

FSM 2081.03 directs the Forest Service to require all equipment be cleaned when working a site contaminated with noxious weeds. The following management actions will be used to prevent or minimize the spread of noxious weeds:

- a. Wash all equipment and vehicles: Vehicles and all equipment must be washed before and after entering all project sites. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners etc. must also be washed before and after entering all project sites. For example vehicle traveling into contaminated areas are the main dispersal mechanism for yellow star – thistle. All washing must take place where rinse water is collected and disposed of in a sanitary sewer or a landfill.
- b. Keep written logs: when vehicle are washed a daily log must be kept stating
 - Location
 - Date and time
 - Method used
 - Equipment washed
 - Name of responsible crew member
- c. Turn in written logs: these written logs will be turned in weekly. Contractors should turn in written logs to the COR. Forest Service staff should turn in written logs to the project manager or to the Forest Botanist.
- d. Site inspection for new infestations of noxious weeds during the project and upon completion of each unit will occur prior to acceptance of the unit. If new infestations are found a plan for treatment of the unit will be developed and completed. The plan may include methods to reduce or eliminate the infestation and limit the spread of the infestation to new units or other areas.

Watershed Design Features

Project measures included to minimize potential adverse soil exposure and disturbance include:

1. Limiting heavy equipment to slopes less than 30 percent.
2. Requiring a three inch mulch layer in masticated areas.
3. Utilizing hand crews in areas of greater than 30 percent slope.
4. Openings on the steeper slopes will be small in size, spaced 100 feet apart, and the larger woody debris will be scattered on site.

Soil Moisture Limitations for Mechanical Equipment Operations:

5. The project leader will be responsible for determining when the soil surface is unstable and susceptible to damage, and will be responsible for terminating operations.
6. The Contracting Officer's Representative will determine when optimum soil conditions exist, and administer the operation to prevent adverse soil effects. The COR will be responsible for suspending, or terminating operations for contracted projects as soil moisture conditions warrant.

Best Management Practices (BMP) to help prevent compaction and rutting of the soils and gully creation include Practice 5-6 (USDA 2001)

Servicing and Refueling of Equipment:

7. The Contracting Officer's Representative, Engineering Representative, Construction Inspector or Timber Sale Administrator are authorized to designate the location, size and allowable uses of service and refueling areas. Operators are required to remove service residues, waste oil and other materials from National Forest land. They must also be prepared to take responsive actions in case of a hazardous substance spill according to the Forest Hazardous Substance Spill Prevention Control and Countermeasures (SPCC) plan.

Best Management Practices (BMP) to help minimize potential impacts to watershed resources (USDA 2000) applicable for this project include Practice 2-12.

Visual Design Features

Visual Mitigation Measures and Recommendations

The following treatments and design principles will be integrated into the implementation of the proposed action to the extent feasible to better meet the Scenic and Visual Objectives required by the Forest LMP.

1. Shaping – Areas where vegetative clearing is performed should have free-form shapes (avoid straight lines/edges) that reflect the natural open space patterns in the landscape. The shapes should relate to the topographic form of the land to flow with the contours and follow natural lines of hills, ridges, drainages, and rock outcrops. It is crucial to Scenic Integrity that the mosaic of chaparral has natural appearing edges. A Forest landscape architect should be consulted before layout and marking begins.
2. Hand treatments and/or the use of hand tools and manual means of fuels reduction should be used to the extent feasible in lieu of heavy equipment, mastication, and crushing.
3. The prominent saw-cut stumps that are scattered throughout the campground should be cut or ground down to near ground-surface (< 6") so that they are less visible through the chaparral and within the conifer stands.

4. Leaving a minimum undisturbed vegetative radius of five feet around the stumps will help reduce their dominance on the landscape.
5. The Forest landscape architect should be consulted before layout and marking begins, especially when work will be done near the Pacific Crest Trail.
6. The number of vehicle access routes from the Forest Service Road 3N06 and the administrative road to the areas where mastication or crushing may occur, should be minimized and the same tracks used whenever feasible.
7. The administrative road along the ridge should not be used when saturated soil conditions exist because vehicles may cause deep ruts in the road which could persist for years and detract from Scenic Integrity.
8. To prevent damage to existing vegetation/shrub buffer areas, do not cut corners when turning into or onto existing access routes.
9. BMPs, decompaction and erosion control should be implemented in the access tracks of the equipment used with the crusher. Other heavy equipment should be used on existing roads and fire breaks whenever feasible.
10. Any heavy equipment staging areas and access points will be rehabilitated and blocked after project completion. Rehabilitation would include returning the ground to natural contours, implementing de-compaction and erosion control measures as needed, and covering bare soil with any excess masticated material, or Forest approved mulch type material. Special care shall be taken to rehabilitate any damage to the existing administrative to pre-project conditions.
11. Schedule burning piles within 3 years of project implementation and during the late winter. Vegetative recovery following burning of hand piles occurs a lot faster if the burning takes place in late winter. The vegetative recovery will aid in restoring the Scenic Integrity to the site.
12. When burning piles, prevent edge scorching. Edge scorching is detrimental to the Scenic Integrity of the project site. Pre-treat areas with control lines, portable sprinkler systems, or Forest approved fire retardants to protect the existing vegetation around the burn perimeter/areas.
13. Burned slash should be scattered evenly throughout the site to reduce the color contrast of the exposed soil.
14. Wherever feasible, on site chipping and scattering of crushed or cut-piled vegetation is preferred over prescribed burning. This method provides a natural layer of natural mulch that serves as a type of weed abatement, and reduces the immediate visual impact caused by the contrast between the remaining vegetation and the scorched surface from the fire damage.
15. Leaving a dense roadside stand (approx. 20-30 ft.) of vegetation will reduce the highly visible land disturbances associated with unauthorized OHV use. Leaving dense vegetative buffers that are a minimum of 20 feet, or in areas where existing vegetation is not dense enough, a combination of natural barriers (rocks, logs, etc.), will be essential for preventing unauthorized OHV use.
16. Wherever the Fuels Reduction Project encroaches on the immediate foreground (0-300 ft) of the PCT, a minimum 100-foot vegetative buffer must be maintained where mechanical equipment is not allowed. The first immediate 40 feet of ground vegetation on both sides of the PCT should remain untouched, but the remainder of the 100' buffer fuel and planting treatments shall only be done using hand tools without heavy equipment or

motorized vehicles. These areas should only be thinned out/feathered by hand to reduce the fuel volume.

17. Where trees are planted only a 4 foot diameter maximum area of vegetation may be cleared.
18. Regardless of the fuel clearing method, avoid creating any entry/exit points when accessing treatment areas on either side of the PCT, or driving any heavy equipment on the trail itself. Use existing road access.
19. Any slash should be removed a minimum of 150 feet away from the PCT, and piled and burned at least 150-feet away from the PCT.
20. After burning is complete, where feasible, burn sites that are visible from the PCT foreground should be covered with any available masticated mulch, natural duff or Forest approved wood chips (mulch) to minimize visibility of the burned area.
21. Any damage to the PCT from implementation of project activities should be rehabilitated to original conditions prior to the damage occurring.
22. Signs will be posted on the PCT to deter OHV use where applicable.

Heritage Resources Design Features

The project will be implemented in accordance with stipulations of the first amended Regional Programmatic Agreement (2001) between the California State historic Preservation Officer, the Advisory Council on Historic Preservation, and the USDA Forest Service, Pacific Southwest Region, thereby satisfying the Forest's responsibilities under Section 106 of the National Historic Preservation Act of 1966, as amended. Impacts to heritage sites will be avoided through specific measures described in the Section 106 Clearance (Heritage Resources Case Number: 10SCM34PISP)

The following management measures are necessary for protection of historic properties:

1. Notify Project planner, manager, or implementer (Stip. I(B)[2])
2. Establish Buffer Zone (Stip. I(C))

Three archaeological sites are located within or adjacent to the defined APE for the proposed plantation maintenance in and around Guffy Campground. All archaeological sites within the project area will require a 30 foot buffer. No mastication or other mechanized equipment is permitted within the buffer and all maintenance activities within the buffer must be done using hand methods only.