

# **DECISION MEMO**

## **SANTA CLARA MOJAVE RIVER RANGER DISTRICT PLANTATION MAINTENANCE PROJECT**

### **USDA FOREST SERVICE SANTA CLARA MOJAVE RIVER RANGER DISTRICT, ANGELES NATIONAL FOREST LOS ANGELES COUNTY, CALIFORNIA**

#### **BACKGROUND**

The Plantation Maintenance project consists of eleven plantations primarily located along Liebre Ridge between Bald Mountain on the west and Lake Hughes/Grass Mountain on the east. Three additional plantations are located along Bouquet Canyon Road from the southern forest boundary to Bouquet Reservoir. The plantations are located in areas classified as Backcountry, Back Country, Non-motorized and Developed Area Interface by the Angeles National Forest.

The Angeles National Forest Land Management Plan identifies a need to complete 1,000 acres of mortality removal, 600 acres of thinning and 100 acres of reforestation in order to move the Angeles towards the desired condition of community protection and healthier forests. This proposed action supports this resource management program emphasis.

Lack of management activity in these plantations in the past has created a situation where trees have become overstocked, reducing their overall vigor. This circumstance places the trees at risk of mortality from insects, disease, drought and fire. By reducing canopy cover and increasing spacing between individual trees, moisture competition will be reduced and a healthier growing condition for the remaining trees will be created. By pruning lower branches, removing competing brush from within the plantations and by creating a fuelbreak around the plantations, the potential of fire induced mortality is reduced. Finally, by replanting in areas where mortality from insects, disease or fire has occurred, recreation and wildlife habitat features will be retained.

Characteristics of the project site along with proposed actions are summarized in Table 1 and the location of the project site is illustrated in the map attached.

**Table 1. Characteristics of the Project Site**

Plantation Name	# Acres	Treatment(s)	Legal Description
Atmore	7	TPR(H)	T7N R16W Sec 46
Boundary	1	TPR(H)(M)ip	T7N R14W Sec 26,35,36
Centennial	5	TPR(H)ip	T6N R14W Sec 34,33,28,27
Desert View 1	13	TPR(H)(M)	T7N R15W Sec 20
Desert View 2	14	TPR(H)(M)	T7N R15W Sec 20
Grass Mountain	5	TPR (H)(M)	T7N R15W Sec 27,28
Hollow Tree	9	TPR(H)ip	T7N R15W Sec 28
Sandberg	32	TPR(H)(M)	T8N R17W Sec 32
Squirrel	23	TPR(H)(M)	T7N R15W Sec 20
Steiner	15	TPR(H)(M)	T7N R15W Sec 20
Tumble Inn 1	5	TPR(H)(M)	T17N R17W Sec 7
Tumble Inn 2	15	TPR(H)(M)	T17N R17W Sec 7
Upper Shake	91	TPR(H)	T7N R16W Sec 13

Total Acres 235

Treatments T Thin  
P Prune  
R Release (H) Hand (M) Masticate  
ip inter plant

It is my decision to proceed with the Santa Clara Mojave River Ranger District Plantation Maintenance Project. This project follows the direction of the National Fire Plan and the Healthy Forest Initiative and would not result in adverse environmental effects.

***Project Description***

The purpose of this project is to reduce the risk of catastrophic wildfire, improve wildlife habitat, improve health and vigor of individual trees within plantations and assure the long term retention of these features on the landscape of the forest. The proposed action is designed to improve forest health and reduce wildland fire risk. The proposed treatments are tools that will be used to achieve the desired conditions.

**Mortality Removal:** All dead trees within the boundary of the plantations will be removed, except those non-hazardous dead trees greater than 16 inches in diameter will be left in numbers of 2-3 per acre for wildlife habitat. Material over three inches in size will be retained on site for possible sale as a forest product (firewood). Material less than 3 inches and within 100 feet of a road will be chipped and the chipped material blown back onto the site. Material 3 inches and less and greater than 100 feet from a road will be piled for burning(s) when conditions are favorable based on parameters of a prescribed fire plan. All stumps will be “flush cut” within 4” of the surface except where a rock or other obstacle prevents this and then a 6 inch cut above the obstacle will be permitted.

**Thinning:** Trees will be removed to create 20 feet x 20 feet spacing between the boles of the remaining trees. Native trees, (ponderosa pine, incense cedar and Coulter pine) will be favored over non-native species. Material over three inches in size will be retained on site for possible sale as a forest product (firewood). Material less than 3 inches and within 100 feet of a road will be chipped and the chipped material blown back onto the site. Material 3 inches and less and greater than 100 feet from a road will be piled for burning when conditions are favorable based on parameters of a prescribed fire plan. All stumps will be “flush cut” within 4” of the surface except where a rock or other obstacle prevents this and then a 6 inch cut above the obstacle will be permitted.

Fomes annosus (*Heterobasidion annosum*) is a fungus that attacks a wide range of woody plants causing a decay of the roots and butt and the death of sapwood and cambium. All conifer species in California are susceptible to the fungus. To reduce the risk of fomes annosus infestation, Sporax will be applied within 15 minutes to freshly cut stumps. The active ingredient in Sporax is borax, a naturally occurring mineral made of sodium, boron, oxygen, and water. Borax is virtually nontoxic to humans, birds, fish, and to aquatic invertebrate animals. No treatment of vegetation would occur within 200 feet of streams or during rain events; therefore, no borax is anticipated to enter the streams.

All tree-form oaks will be retained but thinned to 2-4 stems per tree.

**Hand Clearing, Masticating and Release:** All brush within the plantation boundary will be cut 4” or closer to the surface except where a rock or other obstacle prevents this and then a 6 inch cut above the obstacle will be permitted. Material less than 3 inches and within 100 feet of a road will be chipped and the chipped material blown back onto the site. Material 3 inches and less and greater than 100 feet from a road will be piled for burning when conditions are favorable based on parameters of a prescribed fire plan. In addition, a 30 foot wide “fuelbreak” will be created around the perimeter of the plantations, where all brush will be cut or masticated. Mastication will only occur on slopes less than 30%. Masticated material will be retained on site to provide protection for the soil and reduce the potential of the spread of noxious weeds.

All tree-form oaks within the fuelbreak areas will be retained and thinned to 2-4 stems per tree.

**Pruning:** All trees retained after thinning will be pruned to a height of 10 feet from the surface or no more than ½ of the live crown height, when 10 feet cannot be achieved. All limbs will be “flush cut” to the bole of the tree. Material less than 3 inches and within 100 feet of a road will be chipped and the chipped material blown back onto the site. Material 3 inches and less and greater than 100 feet from a road will be piled for burning when conditions are favorable based on parameters of a prescribed fire plan.

**Planting:** In plantations where mortality from insect, disease, drought or fire has created areas where reforestation is required to meet 20 foot x 20 foot spacing, planting of native stock seedlings will occur. Planting will generally occur during January through May, dependent on elevation and moisture conditions. Planting holes will be created by use of a power soil auger or with a manual planting bar. A 2 foot x 2 foot “scalp” will be created at each planting site to limit competition from herbaceous vegetation. Spacing for seedling will be approximately 6 feet x 6 feet.

**Weed Treatments:** Hand removal of noxious weeds including thistle, will occur throughout the plantations as needed where those species are found and with prior permission from the Forest botanist.

**Table 2. Summary of Acres by Treatment**

<b>Acres by Treatment</b>	
<b>Treatment</b>	<b>Acres</b>
Mortality Removal	43
Thinning	235
Fuelbreak Maintenance (Hand Clearing, Mastication)	42
Pruning	235
Planting	15
Brush Removal (Release)	235

***Avoidance and Minimization Measures***

The avoidance and minimization measures included below preventing extraordinary circumstances and those in Appendix A are incorporated into my decision, and are mandatory conditions of the authorization for this project.

**REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION**

The proposed action falls under the following categories of actions that may be excluded from documentation in an environmental impact statement (EIS) or environmental assessment (EA) and normally does not individually or cumulatively have a significant effect on the human environment:

*Categorical Exclusion (31.12 (#3)) (FSH 1909.15): “Repair and maintenance of administrative sites” and (31.2 (#6)) (FSH 1909.15): “Timber stand and/or wildlife habitat improvement activities which do not include the use of herbicides or do not require more than one mile of low standards road construction”*

The environmental analysis conducted for the proposed action determined that there were no extraordinary circumstances or conditions that would result in significant adverse effects. Extraordinary circumstances include, but are not limited to, the following:

**1. Threatened and Endangered Species or Their Critical Habitat**

Based upon results from the site assessment, the project site contains suitable habitat for the following wildlife species:

- California spotted owl
- California legless lizard
- San Diego Coast horned lizard
- Pallid bat
- Western red bat
- Tehachapi white eared pocket mouse

### ***Forest Service Sensitive Species***

It is my determination that the proposed project may affect individuals, but is not likely to result in a trend toward Federal listing or loss of viability for the California spotted owl, California legless lizard, San Diego horned lizard, pallid bat, western red bat and Tehachapi white-eared pocket mouse.

## **2. Forest Service Sensitive Species**

### Wildlife

Based upon results from the site assessment, the project site contains suitable habitat for the following wildlife species:

- California spotted owl
- California legless lizard
- San Diego Coast horned lizard
- Pallid bat
- Western red bat
- Tehachapi white eared pocket mouse

It is my determination that implementation of the SCMRRD Plantation Maintenance Project will not affect any threatened or endangered wildlife species or their designated critical habitat. (Angeles National Forest, June 2009)

### Botanicals

- To reduce impacts to the population of slender mariposa lily (*Calochortus clavatus* var. *gracilis*) at Hollow Tree plantation, populations will be flagged and avoided and the following restrictions will apply:
  1. No replanting will occur within 100 feet of the slender mariposa lily population.
  2. Mortality removal may occur between September 15 thru February 29 when the slender mariposa lily is dormant. The rootballs will be left in place, and efforts will be made to minimize soil disturbance.
  3. No burn piles will be constructed within 100 feet of the slender mariposa lily population.
- To prevent impacts to the short-joint beavertail cactus (*Opuntia basilaris* var. *brachyclada*) at Centennial plantation, the population will be flagged and avoided with a 50 foot buffer.

It is my determination that implementation of the SCMRRD Plantation Maintenance Project will not affect any threatened or endangered botanical species or their designated critical habitat. (Angeles National Forest, December 2009)

## **3. Flood Plains, Wetlands, or Municipal Watersheds**

The project would not adversely affect floodplains, wetlands, or municipal watersheds.

#### **4. Congressionally Designated Areas, Such as Wilderness, Wilderness Study Areas, or National Recreation Areas**

There are no congressionally designated areas within the project area (U.S. Department of Agriculture, 2005).

#### **5. Inventoried Roadless Areas**

The project area is not located within an inventoried roadless area (Angeles National Forest, 2000).

#### **6. Research Natural Areas**

There are no research natural areas within the project area (U.S. Department of Agriculture, 2005).

#### **7. American Indians and Alaska Native Religious or Cultural sites**

Regularly scheduled meetings and correspondence with the Native Americans on general Forest issues and mutual concerns have not identified any American Indian or Alaska Native religious or cultural sites of concern located within the treatment areas.

#### **8. Archaeological Sites or Historic Properties or Areas**

Forest Service personnel conducted an Archaeological Reconnaissance and produced a report on January 15, 2009. Cultural resources were encountered during the survey. The Forest Heritage Resource Program Manager has deemed project activities as an undertaking where management measures are necessary for protection of historic properties and it is necessary to notify Project planner, manager, or implementer, to flag, avoid and buffer zone all resources to be protected (Stip. I(A)(2), and Stip. I(B)[2] of Section 106 Form). Ground disturbance, mastication, equipment staging, planting, pile burning, or chipping will not be permitted in the Heritage Resource site boundary. As directed in the 106 form by the Forest Archaeologist, mastication or other ground disturbance will not be allowed within those plantations with dense vegetation and therefore poor visibility restricting a successful survey of heritage resources. Any use of the Old Ridge Route (Forest Road 8N04) must be approved by the District Ranger on a case by case basis and coordinated closely with the Heritage Resource Officer before implementation or before any heavy equipment is transported across it. (Angeles National Forest, January 2009)

#### **9. Clean Air Act General Conformity**

The proposed action has been analyzed as required under the General Conformity Rules of the federal Clean Air Act and 40 CFR Part 51, subpart W and part 93, subpart B and has been determined to conform to the applicable State Implementation Plan for the purpose of attaining and maintaining all National Ambient Air Quality Standards (Angeles National Forest, November 2008). This project does not exceed threshold levels and therefore meets federal conformity guidelines. No additional air quality analysis is required and no conformity determination is required for this Forest Service action.



## **REFERENCES**

- Angeles National Forest. 2000. Inventoried Roadless Areas Map. Roadless Area Conservation. September 15, 2000. Available: <http://www.roadless.fs.fed.us/states/ca/ange.pdf>.
- Angeles National Forest. 2009. Air Quality Specialist Report for SCMRRD Plantation Maintenance Project. Prepared by AMSET\* Air Quality Specialist, November 2008.
- Angeles National Forest. 2009. Archaeological Reconnaissance Report (Section 106 Form) for SCMRRD Plantation Maintenance Project. Prepared by Darrel Vance, Angeles National Forest Heritage Resource Program Manager, January 2009.
- Angeles National Forest. 2009. Biological Evaluation/Biological Assessment Letter for SCMRRD Plantation Maintenance Project. Prepared by Teresa Sue, AMSET Wildlife Biologist and Pete Johnston, District Biologist, June 2009.
- Angeles National Forest. 2009. Biological Evaluation/Biological Assessment Letter for Plants for SCMRRD Plantation Maintenance Project. Prepared by Wendy Boes, AMSET Botanist and Janet Nickerman, Forest Botanist, December 2009.
- Angeles National Forest. 2009. Hydrology Report for SCMRRD Plantation Maintenance Project. Prepared by Gail Bakker, AMSET Hydrologist #399, January 2009.
- U.S. Department of Agriculture. 2005. Land Management Plan – Part 2 Angeles National Forest Strategy. Pacific Southwest Region R5-MB-076. September 2005.

\*AMSET – Adaptive Management Services Enterprise Team, US Forest Service.

## Appendix A

### Avoidance and Minimization Measures

The following avoidance and minimization measures shall be implemented to avoid the potential for significant adverse effects to sensitive environmental resources. These measures are mandatory conditions of project authorization:

1. All materials, wastes, and equipment will be removed from the project site(s) at the completion of the project.
2. Vehicles will not be driven off of designated access roads and fuelbreaks during the course of project implementation.
3. Where feasible, safety zones and escape routes will consist of the existing roads and trails.
4. Where feasible, snags and down wood will be left in place.
5. To the extent feasible, rock outcrops should be excluded from hand treatments and mechanical equipment.
6. In order to minimize potential disturbance impacts, work crews should be trained about Angeles National Forest (ANF) special status species.
7. Work crews must immediately notify the Los Angeles River Ranger District Biologist of any sightings of threatened, endangered, proposed, candidate, and sensitive plant and animal species (TEPCS Species) and of any injured/sick/abandoned animals.
8. Where feasible, burning and removal of trees and other vegetation will be conducted outside of the general nesting season for migratory birds (approximately April 1– September 1). The Forest Biologist will be notified if treatment occurs between April 1 – September 1.
9. For treatments within 500 feet of suitable southwestern willow flycatcher habitat, noise-generating activities that require the use of large equipment or mechanized equipment such as chain saws will be scheduled to occur outside of April 1 to August 31. Beyond the 500-foot buffer, no seasonal restriction is recommended for the flycatcher. Noise-generating activities can proceed during this timeframe if surveys during the current breeding season have determined that southwestern willow flycatchers are not present in the project area.
10. If suitable nesting habitat for the California spotted owl is present in the project site or within ¼ mile of the project site, limited operating periods may apply. Limited Operating Period Guidelines from the June 2004 *Conservation Strategy for the California Spotted Owl (Strix occidentalis occidentalis) on the National Forests of Southern California* will be in place, unless surveys confirm that spotted owls are not nesting in the proximity of the project. If protocol surveys determine that spotted owls are nesting within 0.25 mile of the project area or if nesting owls' Protected Activity Center (PAC) is within 0.25 mile of the project area,

project activities in this area may not occur from February 1 - August 15.

11. All equipment staging areas and burn pile areas will be located away from known areas with invasive species occurrences. A Forest Service botanist will identify appropriate locations prior to project implementation, and this information (map) will be provided to the contracted entity.
12. TEPCS plants observed within the project area will be flagged and treatments will be designed to minimize negative impacts.
13. Riparian Conservation Areas (RCAs) will be defined and mitigated as follows:
  - a) Perennial Stream = 300' buffer; Intermittent Stream = 100' buffer.
  - b) No mechanized equipment allowed.
  - c) No take of live riparian species, i.e. willow, maple etc.
  - d) Retain or re-establish ground cover to 60-70%, consisting of litter, duff, slash, grass.
  - e) In identified RCAs, there will be no treatment within stream inner gorge (from channel bottom to major break in slope).
  - f) Any ground-based units that have a high degree of existing soil quality impairment (as identified by hydrologist/soils specialist) will require mitigations so as not to exceed threshold standards for detrimental disturbance.
14. 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 decomposition and erosion control measures as needed, and covering bare soil with slash, chips, pine needles, or cut brush.
15. In the masticated area material will remain on site to provide a barrier to the noxious weed invasion into the treated areas.
16. Protocol standards will be used in the washing of equipment to prevent the spread of noxious weeds. Documentation forms regarding this activity will be maintain by the project manager and forwarded to the forest Botanist.
17. Prior to project implementation a Forest Service Botanist will be contacted no later than one month prior to project implementation to insure that the proper protection measures are in place. The following is a list of known high priority invasive species from the project area and control measures to prevent spread:
  - a) Arundo (*Arundo donex*): The population of arundo at the Boundary plantation will be flagged and avoided with a 50 foot buffer.
  - b) Tobacco tree (*Nicotiana glauca*): The populations of tobacco tree known from Boundary and Centennial plantations will be removed (cut to ground) prior to project implementation or flagged and avoided with a 50 foot buffer.
  - c) Periwinkle (*Vinca sp.*): The two locations of periwinkle in the Centennial plantation will be flagged and avoided with a 50 foot buffer.
  - d) Tamarisk (*Tamarix sp.*): The solitary tamarisk plant at the Sandberg plantation will be removed prior to project implementation (this occurrence is on a roadway so buffering is

not possible). Complete removal of individuals includes removal of roots and vegetative parts.

- e) Tree of Heaven (*Ailanthus altissima*): The population of Tree of Heaven known from Boundary will be flagged and avoided with a 50 foot buffer.
- f) A combination of natural barriers (rocks, logs, etc.), 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. Coordination with adjacent landowners, public education, and signing will be used as appropriate if necessary.

18. Prescribed burning activities will take place using the following mitigation measures in order to minimize air quality impacts:

- a) Apply Best Available Control Measures (BACMs) described in the USEPA Staff Work Project, "Prescribed Burning Background Document and Technical Information Document for Best Available Control Measures", 1992.
- b) Burn when piles are dry to increase combustion efficiency and therefore reduce emissions from the burn.
- c) Mop-up rapidly, usually within 8 hours, and extinguish residual smoke following the flaming phase.