

McGill-Mt. Pinos Project Proposed Action
Los Padres National Forest – Mt. Pinos Ranger District
April 29, 2005

Introduction

The McGill-Mt. Pinos Project would reduce stand densities, ladder and ground fuels to create a desired condition of a healthy Jeffery pine forest with a low fire hazard. The project is located approximately 12 miles west of Frazier Park, California. The purpose of this project is to maintain health of the mature conifers, reduce the risk of mortality due to insects, disease, and catastrophic fire, protect high value recreation areas, and preserve old growth pine stands. The project area includes McGill, Mt Pinos and Chula Vista Campgrounds. The legal location is Kern and Ventura Counties, T8N, R21 W, Sec. 3 to 5 and 8; T9N, R21W, Sec. 33 to 35). The project is approximately 1,010 acres in size. A project map is attached.

Background Information

On the Los Padres National Forest only 8% of the vegetation consists of conifer forest. The conifer forest is highly valued for its scenic and habitat characteristics in relation to recreation. The Los Padres National Forest has experienced an unprecedented accumulation of woody vegetation material on most forest stands. In the past decade, the project area has also received below-average precipitation despite the above average precipitation in 2004-2005. These two factors have provided a volatile situation that places both forest vegetation and the human communities within them at risk to major wildfire events. And because of overstocking, often over 200 sq. ft of basal area, in the conifer stands, the larger stressed trees are at risk of loss due to insects and diseases.

Fire suppression and lack of active forest management resulted in the development of increasingly dense forest stands throughout the latter half of the 1900s. Particularly dense mid-and understory thickets of shade-tolerant species such as oaks, pinyon pine and white fir have developed on many sites. The combination of severe drought stress has interacted with endemic forest insects and diseases such as bark beetles and engraver beetles, annosus root disease, and dwarf mistletoe to kill conifer trees in large numbers across widely-differing site and stand conditions. Populations of insect pests, such as *Ips*, *Scolytus*, Flatheaded borer, and Western pine beetle, have dramatically increased, and many stands have experienced increased mortality of susceptible species. Especially impacted are Jeffery pine stands.

The potential for extreme fire behavior and severe fire effects poses an unacceptably high fire hazard to the vegetation within and adjacent to the McGill-Mt. Pinos project area, as well as risk of severe ecological fire effects. These high intensity fires are a threat to the sustainability of conifer forests that are important for aesthetics, recreation, wildlife habitat, and watershed function on the Mt. Pinos Ranger District. These dense stands contain well-developed forest floor fuels, ladder fuels consisting of dense midstory and understory trees and shrubs, and continuous canopies of oak and conifer overstory trees. These stand conditions are predisposed to intense fire behavior under extreme weather conditions that can occur every year.

Desired Future Condition

The project area contains high value, old growth Jeffery Pine stands. The desired condition for forest stands are to maintain these high value Jeffery pine stands and create fuel conditions that result in a low intensity surface fire in the event of a wildfire ignition. The project is also designed to create vegetative stand conditions that promote a healthy and vigorous forest stand that is irregular uneven-aged, multi-sized, and with a variety of species. To meet the project objectives and push the current condition toward

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the desired future condition, treatment needs are to reduce standing dead and live fuels, reduce ladder fuels, and break up the continuity of small to medium-sized trees and shrubs in all plant communities.

Midstory and understory trees would be mostly Jeffery pine and occasional pinyon pine, black oak, and white fir. Treatments in the naturally forested areas would focus on creating open stands, with widely spaced overstory trees, widely-spaced small patches. Shrubs, small trees, and ground vegetation is dominated by herbaceous plants. The stands' surface and ladder fuels would be at low enough levels that crowning, torching, and other severe fire behavior would not likely occur during a wildfire. In shrub stands, shrub coverage and continuity would also be reduced to about 55-70 percent of current levels.



Existing Condition – *Mt Pinos* - Dense stands with high inter-tree competition and heavy ladder fuel conditions.

Desired Condition – *Mt. Pinos Area* – Existing Old Growth Pine stand showing open conditions without extensive ladder fuels. This stand was previously treated with prescribed fire.



Specific Treatment Prescriptions

Treatment is proposed on a total of 1,010 acres. The following treatments are proposed:

- Thin smaller/younger Jeffrey pine, pinyon pine, and white fir adjacent to larger trees to reduce inter tree competition, and decrease ladder fuels (*fuels which provide vertical continuity between surface and crown fuels*) to reduce fire intensities during a wildfire.
- Stands of naturally occurring Jeffery/pinyon pine/white fir would be thinned to carry about 100-140 sq. ft. of basal area (BA) to favor California Black Oak. Using an irregular uneven-aged thinning approach, a goal objective would be 125 Sq. ft. BA. This would leave about 102 trees per acre less than 30 inches dbh¹. All trees larger than 30 inches dbh would remain on site (unless a safety hazard).
- Slash would be treated with conventional methods such as hand piling, prescription fire, or chipping. Site preparation for planting would also be accomplished with prescribed fire. Planting of tree seedlings may be done to enhance species diversity, provide structural diversity, and fill in slash disposal or burn created openings. Planting at a 14 x 14 foot spacing would provide about 220 seedlings per acre.
- Any trees greater than 4" dbh to be removed would be felled and limbed, and where feasible, concentrated and made available for forest products/campground firewood. In other areas the felled trees would be limbed, concentrated and/or scattered followed by a combination of jackpot burning/pile burning/broadcast burning. Irregular uneven-aged stand structure would be emphasized and maintained. Where feasible, forest products such as fuel wood or Christmas trees would be made available to the public.
- Borax (presently registered as SPORAX) would be applied to freshly cut stumps for control of annosus root rot disease (*Hertobasidium annosum*).
- No new road construction would occur, however designated "travelways" for pickup trucks would be used to remove some material for public use.
- Broadcast burning may take place within the project area once treatment activities are completed or to maintain a desired condition.
- If natural regeneration is inadequate to meet the silvicultural objectives due to insect/disease losses or loss of species diversity, inter-planting of native seedlings of the Jeffrey pine forest type would occur.
- Where needed, thinning and pruning to control mistletoe will be performed.

¹ dbh = diameter at breast height (about 4.5 feet) as measured on the uphill side of a tree bole.

Design Criteria for Proposed Action Treatments

Table 1 below contains design criteria developed to reduce or eliminate impacts on some resource areas and are incorporated as an integrated part of the proposed action.

Table 1: Design Criteria by Resource Area

Design Criteria	Description of Design Criteria
Silviculture	
SL-1	All project activity would use existing classified and unclassified roads. Removal of forest products may require travel by vehicles (such as pickup trucks) off existing roads to facilitate removal. These temporary travelways would be closed and obliterated following product removal. Ground equipment would be restricted to slopes of less than 30%, except for occasional pitches up to 50%.
SL-2	When chipping is employed, chip depth would be no more than 2 inches scattered across no more than 75% of the project area.
SL-3	SPORAX (tetrasodium borate decahydrate) would be applied to all cut conifer stumps (larger than 12") to prevent infection by annosus root disease (<i>Hertobasidium annosum</i>).
SL-4	Inter-planting of native seedlings of the Jeffrey pine forest type would occur in areas where natural stand regeneration is inadequate due to insect/disease losses, to provide structural diversity, and to regenerate created openings.
SL-5	Periodic maintenance using underburning would occur in treated blocks following mechanical reduction of biomass.
SL-6	Hazard and diseased trees which present a safety concern in Chula Vista campground and along McGill trail would be removed.
Fuels/Air Quality	
FU-1	Slash from thinning less than 3" diameter would be reduced to less than 5 tons/acre following treatment.
AQ-1	Prescribed burning (both pile burning and underburning) would be conducted with an approved burn plan. A copy of the smoke management plan would be sent to the appropriate County Air Pollution Control District (APCD) upon completion of the burn plan.
AQ-2	Prior to burning the Forest Service Prescribed Fire Manager would ensure that required burn plan components, vicinity map, and project map are mailed with a completed copy of a CB 3 to California Air Resources Board (CARB) so that CARB is familiar with the burn area for 48/72 hour forecasts.
AQ-3	The county APCD would review the burn prior to project implementation.
AQ-4	Smoke would not be allowed to affect highway visibility on public highways.
AQ-5	A Smoke Management Report would be completed daily by the Prescribed Fire Manager, Burn Boss, or Forest Fuels staff during the burn to evaluate fire behavior, smoke venting, wind speed, wind direction, any possible excess standards and actions taken to mitigate excess.
Heritage	No design criteria listed due to no heritage sites present in the project area.
Recreation	
RE-1	Treatments implemented along main project roads need to be held to a minimum of disturbance by utilizing residual vegetation to discourage OHV trespass when consistent with purpose and need.
RE-2	Where available, downed logs should be used to fashion a barrier near the edge of the road to deter motorized vehicle trespass activities and provide resource protection.
RE-3	Maintain the integrity of fencing and signing that currently exist along project roads and entrances to campgrounds.
RE-4	No tree felling activities except for insect infested, diseased and hazard trees are proposed within the Chula Vista Campground perimeter; however, some of the broadcast burning may overlap into the campgrounds where feasible and practicable.

Table 1: Design Criteria by Resource Area

Design Criteria	Description of Design Criteria
Visuals	
VQ-1	Proposed treatments would not conflict with the VQO of retention (as seen from major roads at a distance).
VQ-2	Equipment access away from view origins is preferred. If accessed directly from the view origins (highway or road) avoid straight tangents.
VQ-3	Cut to 4" stumps within the immediate foreground and treat slash.
VQ-4	Feather/undulate treatment block edges and fire lines.
VQ-5	Identify pockets or islands of vegetation to retain, where screening is important.
VQ-6	Burn piles should be located away from the road and out of view when possible.
Noxious Weeds	
NX-1	Implement Best Management Practices for weed management and control.
NX-2	In areas that would be subject to ground disturbing activities, treat cheatgrass to the extent practicable with propane torches in the spring prior to treatment.
NX-3	Pre-treat staging areas to reduce abundance of weeds by hand pulling, grubbing, or torching where weed species occur.
NX-4	Implement aggressive weed control near transportation routes where groundcover is limited.
Wildlife	
WL-1	Timing restrictions for burning would apply to minimize effects to neotropical birds.
WL-2	In hardwood forest stands (excluding fuelbreaks) retain an average of 10 snags per 30 acres; where fewer snags exist, retain all snags within the area which are not an insect, disease or safety problem.
WL-3	In hardwood forest stands retain clumps of mature oaks (0.1 to 2 acres each) for gray squirrel use and mast production.
WL-4	An average of 15 snags per 5-acre block is retained in treated compartments. Distribution can range from random to clumped. Where fewer snags exist, retain all snags within the area which are not an insect, disease or safety problem.
WL-5	An average of 10 or more down logs of suitable size is retained per 5 acre block in treated compartments.
WL-6	Natural shrub islands should be retained where feasible.
WL-7	In identified condor roosting or nesting areas, retain all existing large (24 inches or greater diameter) snag trees, which are not a public safety hazard, and provide silvicultural prescriptions to ensure provision of nearby replacement snags.
Botany/TES Plants	
BO-1	Re seeding of areas requiring rehabilitation shall be done using a mix of grasses, forbs and legumes. Native or naturalized species are emphasized.
BO-2	Sensitive plant surveys/monitoring would occur prior to project activities.
Watershed	
WS-1	Implement USDA Forest Service Region 5 Best Management Practices (BMPs) to protect water quality and soils. Specific BMPs related to this project are identified the project file, Appendix A of the Watershed Specialist Report. BMPs are described in: Water Quality Management for Forest System Lands in California, Best Management Practices. September 2000. United States Department of Agriculture, Forest Service, Pacific Southwest Region.
WS-2	Perennial Streams Riparian Conservation Area buffer of 100 meters or 328 feet. Intermittent and Ephemeral Stream buffer of 100 feet. Inner gorge stream buffer to the top of the inner gorge.

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Design Criteria	Description of Design Criteria
WS-3	Special Aquatic Features (lakes, reservoirs, ponds, wetlands, seeps, springs) or perennial streams with riparian conditions extending more than 50 meters from edge of streambank, or seasonally flowing/intermittent streams with riparian conditions extending more than 10 meters from edge of streambank, use a buffer of 100 meters or 328 feet.
Soils	
SO-1	Slash would be cured prior to burning.
SO-2	Operate mechanized equipment when soil moisture is less than 20%.
SO-3	Prescribed burning would occur during fall, winter or early spring.
SO-4	Achieve at least 60% ground cover to buffer against soil erosion prior to winter rains for slopes greater than 30%.
SO-5	Recommend 80% groundcover is maintained by end of 2 nd growing season for slopes >30%.
SO-6	"Travelways" would be closed and rehabilitated to provide for soil productivity and drainage where necessary following project activities.

Project Monitoring Activities

Table 2 below notes the monitoring actions that would take place during treatments and post-treatments for resource monitoring information.

Table 2: Monitoring Activities

Monitoring Item	Description of Monitoring
Silviculture	
SL-m1	Continued monitoring for any initial outbreak of Sudden Oak Death, <i>Phytophthora ramorum</i> . Identification of an outbreak may be controlled and spread limited. Responsibility: District Silviculturist, Sale Preparation Forester, or designee.
Recreation	
RE-m1	Monitoring should be conducted to determine if OHV trespass activities are occurring in areas where treatments have been performed. If monitoring reveals trespass is occurring in those areas, steps should be taken to discourage the use (i.e. signing and barrier installation). Responsibility: Recreational Forester or designee.
Noxious Weeds	
NX-m1	Monitor for noxious weed populations before, during, and after activities. Responsibility: Forest Botanist or designee.
Watershed	
WS-m1	Implement Best Management Practice Monitoring as described in: Water Quality Management for Forest System Lands in California, Best Management Practices. September 2000. United States Department of Agriculture, Forest Service, Pacific Southwest Region. Responsibility: District Hydrologist or designee.
Soils	
SO-m1	Monitor to determine if 60% groundcover on slopes over 30% is maintained following mastication and burning treatment for first year. Consider rehabilitation where ground cover objectives are not met Responsibility: District Soils Scientist or designee.
SO-m2	Monitor to determine if 80% groundcover is maintained by end of 2 nd growing season. Consider rehabilitation where ground cover objectives are not met Responsibility: District Soils Scientist or designee.

Treatment Definitions for Proposed Activities in the Project Area

Broadcast Burning - a low-moderate intensity prescribed “underburn” in which 50-75% of the area results in a burned or black condition to reduce quantities of “fine fuels” such as tree needlecast and ground surface vegetation.

Chipping - equipment used to reduce piles or concentrations of treated vegetation into wood chips to reduce quantities of fuels as an alternative to burning.

Hand Pile Burning - burning of piles with hand crews using drip torches or propane torches to reduce accumulation of treated vegetation.

Hand Piling - piling of limbs branches brush, portions of trees by a hand crew. Used in areas where access is limited/prohibited for mechanized activities, where material to be piled occurs adjacent to felling activities and does not have to be in designated locations.

Jack Pot Burning - Hand crews utilize drip torches or propane torches to burn concentrations of down trees, limbs, branches, otherwise known as slash to reduce quantities of ground fuels created by thinning activities.

Selective Thinning - selection and removal of trees to change species composition, reduce stand densities, raise the average crown base height to improve long term stand health and increase resilience to insects/disease and wildfire. Thinning would be “from below”, removing suppressed and intermediate trees first, and only removing co-dominants where needed to meet desired stocking/density or species mixtures.

Understory Thinning - reduction of the youngest and or smallest age and size class of trees within the stand to reduce inter tree competition and decrease ladder fuel condition to reduce intensity of wildfire conditions.

Map 1: Project Proposed Action Map.

