

PROPOSED FUEL REDUCTION PROJECT
Soldier Creek Healthy Forest Restoration Project
Stanislaus National Forest
Groveland Ranger District
Tuolumne County and Mariposa County, CA

The Stanislaus National Forest, Groveland Ranger District, is proposing to conduct vegetation treatments including mechanical and hand thinning, mastication, machine piling, prescribed fire, and road improvement activities for fuel reduction and forest health improvements and willow planting for watershed improvement in the general area of Soldier Creek.

PROJECT LOCATION

The project is located within the Groveland Ranger District, Stanislaus National Forest, in Sections 27-36 T1S, R19E and Sections 1-10 T2S, R19E in Tuolumne County and Mariposa County, California. The 5,400 acre analysis area is defined to the north by the South Fork of the Tuolumne River, to the east by Yosemite National Park, to the south by Hazel Green Ranch, and to the west by Hardin Flat and Crocker Ridge. A project vicinity map is provided in **Attachment I**.

PURPOSE AND NEED

Approximately two-thirds of the Groveland Ranger District has experienced unnaturally high intensity stand replacing wildfire over the last 30 years. The Soldier Creek project area is within a zone that has been threatened by stand replacing wildfire. Fuel accumulations make this area extremely susceptible to a large stand replacing wildfire. The National Fire Plan and Cohesive Strategy, developed after the severe wildfire season of 2000, provides direction to reduce fuel loading in fire-prone forests to protect people and sustain resources. The Stanislaus National Forest Land and Resource Management Plan (LRMP) sets goals and objectives for fuel management activities that will enhance natural ecosystem processes while minimizing fire threats to life, property, and resources. The Stanislaus National Forest LRMP also provides for the management of forest pests and forest health to provide for durable, ecologically healthy forest stands. The Stanislaus National Forest LRMP also sets goals and objectives for watershed maintenance and improvements to maintain or improve watershed condition to provide stewardship of water and soil resources.

The primary purpose and need of this project is to:

- 1) reduce future wildfire intensity and risk to federal land and adjacent private land/structures;
- 2) maintain and enhance important wildlife habitat and general ecosystem values such as meadows, streams, mature forest characteristics, and connectivity
- 3) enhance the general health of forested stands by reducing susceptibility to insect, diseases, and drought-related mortality by managing for increased soil moisture availability by restoring a open historic forest condition;
- 4) reduce sedimentation to streams from degraded, damaged roadways;
- 5) increase the value of roads as fuelbreaks by removing adjacent understory fuels and access for possible fire suppression activities;
- 6) design economically efficient treatments to meet the first five objectives.

PROPOSED ACTION

The Groveland District Ranger proposes the following treatment activities to achieve desired conditions for the project area. Proposed treatments are detailed in **Table 1, 2, and 3**. A map of treatment units is provided in **Attachment II**.

Mechanical Thinning

Mechanical thinning would remove trees greater than 4” and less than 30” diameter at breast height; primarily suppressed and smaller trees. The emphasis is on retaining large, healthy and vigorous trees. Large trees would be favored for retention to maintain stand diversity, structure, and health. Mechanical thinning would enhance forest health and vigor, by increasing available water as well as limiting damage caused by insect and disease. Removing suppressed and small trees would also reduce the fire threat by increasing the distance from ground fuels to the crown of the trees and the distance between tree crowns. Biomass removal is proposed to remove the heavy fuel ladder without adding additional ground fuels. Small trees would be spaced approximately 25’ apart to ensure adequate stocking. Black oak trees and other hardwood species would be favored for retention. Mechanical thinning would be conducted for fuels reduction and would adhere to requirements and guidelines stated in the Stanislaus National Forest: Forest Plan Direction, 2005 and the Sierra Nevada Forest Plan Amendment, 2004. Trees over 30” diameter would only be removed where necessary for operational safety, a very rare exception. Mechanical thinning would be conducted on 575 acres. Mechanical thinning would remove trees as sawlogs, biomass chips, and other products.

Mastication

Brush and small trees up to 10” diameter would be masticated and left on site as mulch. Mastication would be conducted after mechanical thinning operations in order to improve mastication efficiency. Mastication is proposed on 378 acres.

Table 1
Proposed Mechanical Thinning Units

Unit	Acres	Treatment			
		MECHANICAL THINNING ¹	MASTICATION ²	GROUND BASED	SKYLINE
24011	28	Yes		•	
24018	81	Yes	Yes	•	
24021	23	Yes			•
24023	8	Yes			•
24026	133	Yes		•	
24035	25	Yes			•
30011	60	Yes	Yes	•	
30021	21	Yes		•	
30042	14	Yes		•	
30047	75		Yes	•	
30048	46	Yes	Yes	•	
30058	10	Yes		•	
30131	6	Yes			•
30134	116	Yes	Yes	•	

Table Notes:

¹ Mechanical Thinning involves the cutting and removal of selected trees from 4.0 inches to 29.9 inches diameter at breast height; trees will be removed as multiple products.

² Mastication involves the mechanical shredding of small trees and brush up to 10.0 inches in diameter at breast height.

Fuel Reduction

Fuel reduction units are designed to reduce ladder fuels that can carry fire into the forest canopy by reducing accumulations of dead and live vegetation. In the event of a wildfire the proposed actions would reduce flame lengths, reduce rate of spread, increase fireline production levels, and increase protection of national forest, national park, and private lands from a catastrophic wildfire. Fuel-break treatment units are designed to be more resistant to wildfire events and provide strategic areas for potential fire suppression activities. Treatment methods proposed are mastication, machine pile and burn, hand thin and hand pile and burn, and underburning. **Table 2** details the list of proposed fuel reduction units and proposed treatments.

Mastication

Brush and small trees up to 10” diameter at breast height (DBH) would be masticated and left on site as mulch. Mastication would be conducted after mechanical thinning operations in order to maximize efficiency and target mastication at strategic areas. Mastication is proposed on 588 acres.

Machine Pile and Pile Burn

Slash from past timber harvest operations and slash from past fire suppression activities as well as pockets of dead small trees/heavy fuel concentrations would be piled using mechanical equipment and then burned. This would be conducted after all other activities have been completed and only where needed. Machine piling and pile burning is proposed on 150 acres.

Hand Thin, Hand Pile, and Pile Burn

In rocky and steep terrain inaccessible to tracked machines and other sensitive resource areas, small trees, brush, and dead vegetation would be cut with chainsaws, piled, and subsequently burned. Burn piles would be placed to minimize tree scorch and resource concerns. This treatment would occur on small portions of most fuel units.

Underburning

Prescribed fire would be used 2 to 7 years after completion of mechanical treatments to reduce residual fuels and to re-introduce fire into the fire-dependent ecosystems. Post mechanical treatment evaluations of site-specific fuel conditions would be completed to determine the need for follow-up prescribed burning. In preparation for prescribed fire, perimeter fireline may be constructed where roads, trails, or natural barriers are absent. Burn prescription parameters would be designed to achieve a fire with an average flame length no greater than 4 feet. Burn objectives also include protection of sensitive features such as archaeological sites, sensitive plant populations, nest trees, and riparian areas, as well as avoiding the spread of noxious weeds and use of fire-lines as motorized trails. Underburning is proposed on 1,936 acres.

Table 2
Proposed Fuel Reduction/Fuel Break Units

Fuel Unit	Total Unit Acres	Treatment						
		MASTICATION	ACRES	MACHINE PILING	ACRES	HAND THINNING AND HAND PILING	PRESCRIBED FIRE	
							UNDERBURNING	PILE BURNING
F01	105	•	85	•	10	•		•
F02	183	•	100	•	30	•	•	•
FB03 ^A	359	•	200	•	50	•	•	•
F04	18					•	•	•
FB05 ^A	60	•	60			•		

Fuel Unit	Total Unit Acres	Treatment						
		MASTICATION	ACRES	MACHINE PILING	ACRES	HAND THINNING AND HAND PILING	PRESCRIBED FIRE	
							UNDERBURNING	PILE BURNING
F06	37	•	37					
F07	57					•	•	•
F08	21	•	21					
F09 ^B	71	•	35			•	•	
F10	75					•	•	
F11	33					•	•	•
F12	54					•	•	•
F13	88					•	•	•
F14	76					•	•	•
F15	114	•	50	•	60	•	•	•
F16	6					•		•
F17	4					•		•
F18	31					•	•	•
F19	111					•	•	•
F20	178					•	•	•
F21	17					•	•	•
F22	103					•	•	•
F23	69	•				•	•	•
F24	158					•	•	•
FB25 ^A	42					•		•
FB26 ^A	22					•		•
FB27 ^A	31					•	•	•
FB28 ^A	34					•		•
30047 ^C	75					•	•	•
30048 ^C	47					•	•	•

Table Notes:

^A FB designates a fuel-break unit, fuel-break treatments are designed to be more resistant to wildfire events and provide strategic areas for potential wildfire suppression activities.

^B Unit FB09 – Adjacent to the small segment of private land, some trees may be cut and removed offsite in order to minimize fuel loading and achieve visual goals.

^C These are mechanical thinning units that will be treated with prescribed fire after the completion of the mechanical thinning treatments.

Roadside Fuel Reduction

Roadside fuel treatment is proposed along following selected roads and are shown visually in **Attachment III**: Highway 120, Harden Flat Road, 1S11, 1S11A, 1S11C, 1S12, 1S113Y, 1S16Y, 1S20, 1S69, 1S70, 1S71, 1S75, 2S30, and 2S30C. Treatment including hand thinning, hand piling, and pile burning of brush and small trees for distances of 20 feet on listed roads except Highway 120 within the project area. The removal of trees hazardous to public safety will also be cut and removed or cut and left in place from these road corridors. Highway 120 clearing involves a clearing distance of 200 on each side of the highway using a combination of mastication and hand thinning, hand piling, and pile burning.

Transportation Activities

The proposed action would include improvement of existing National Forest System Roads as needed to safely and efficiently carry out the proposed mechanical thinning and fuel reduction activities. Most of the activities proposed would create or restore drainage features on existing roads making the road system less

prone to erosion damage and improve access for management as well as recreation and potential fire suppression activities. Approximately 17 miles of National Forest System Roads would be improved.

The improvements are categorized as follows:

- Reconstruction and Maintenance of 15 miles of roads is required to provide equipment and vehicle access for mechanical thinning and fuel reduction. Reconstruction actions include reconditioning the roadway, repairing and improving drainage features, placing crushed rock and/or soil on road surfaces, cleaning culverts, constructing or restoring dips and lead-off ditches, removing encroaching vegetation allowing, for safe travel way for chip van passage and repairing other drainage problems that are obviously leading to road surface erosion. Reconstruction would return the roads to their intended condition and would reduce future erosion and traffic safety risks.
- Restoration, for 2 miles of roads with watershed or erosion concerns not related to project access. Restoration activities would include repairing gullies, minor realignment to reduce stream sedimentation, and repair or replacement of culverts, dips, and/or similar drainage features.

Roadside brush removal clearing limits would be approximately five feet from the edge of the roadway. Trees that are hazardous to public safety would be cut and removed or cut and left in place. Road improvement activities would be conducted in a manner which reduces the risk of noxious weed spread. Roads to be improved are listed in **Table 3** below and detailed in **Figure 2**.

Table 3
Proposed Road Treatments

Road Number	Restoration	Segment Length (mile)	Reconstruction and Maintenance	Segment Length (mile)
1S01Y			•	0.4
1S01Y-B			•	0.5
1S11			•	1.5
1S13Y	•	0.2	•	0.3
1S16Y			•	1.9
1S19-28A			•	0.1
1S19-33			•	0.4
1S19-33C	•	0.1		
1S19-34A			•	0.2
1S56Y			•	0.6
1S57Y	•	0.1		
1S59			•	0.9
1S59Y	•	0.3		
1S61Y			•	0.3
1S61Y-A			•	0.3
1S65Y	•	0.2		
1S70	•	0.1	•	0.1
1S71	•	0.1	•	1.3

Road Number	Restoration	Segment Length (mile)	Reconstruction and Maintenance	Segment Length (mile)
1S75			•	0.6
2S30			•	3.1
2S40			•	0.8
2S87			•	0.7
F6041	•	0.1		

Willow Planting

Willow planting is proposed in unit F12 in an area that has experienced high erosional rates and subsequently a gully has formed. Locally collected willow cuttings would be planted in the head-cut area and gully sides to stabilize and revegetate the disturbed area, reducing sediment input into nearby Rush Creek. Approximately 1000 square foot area would be planted.

HOW TO COMMENT

The Forest Service will accept written, facsimile, hand-delivered, oral, and electronic scoping comments on this proposal for 30 calendar days following publication of this notice in the Union Democrat. The publication date in this newspaper of record is the exclusive means for calculating the scoping comment period for this proposal. Those wishing to comment should not rely upon dates or timeframe information provided by any other source.

Comments may be submitted to: Groveland Ranger District; Attention: Soldier Creek; 24545 Highway 120; Groveland, CA 95321. Comments may be submitted by FAX [209-962-7412] or by hand-delivery to the address above, during normal business hours (Monday-Friday 8:00am to 4:30pm). Oral comments must be provided at the Ranger District office, in person or via telephone [(209) 962-7825]. Electronic comments, in acceptable formats (plain text (.txt), rich text (.rtf) or Microsoft Word (.doc)), may be submitted to: [comments-pacificsouthwest-stanislaus-groveland@fs.fed.us] with subject heading: Soldier Creek. For electronically mailed comments, the sender should receive an automated electronic acknowledgment from the agency as confirmation of receipt.

Names and addresses of those who comment, will be considered part of the public record on this proposed project, and will be available for public inspection. Comments submitted anonymously will be accepted and considered; however, those who submit anonymous comments will not have standing to file an objection under 36 CFR 215.

For additional information on the proposed action, contact Jason Jimenez (209) 962-7825 extension 542 or jjimenez@fs.fed.us at the Groveland Ranger District; 24545 Highway 120; Groveland, CA 95321.