

DECISION MEMO

Moonlight Hand Thinning Project Eagle Lake Ranger District, Lassen National Forest Lassen County, California July 15, 2016

Decision

I have decided to implement the Moonlight Hand Thinning Project. This project consists of approximately 1,528 acres in the following legal locations: T29N, R10E, Sections 13, 20, 21, 24, 25, 28, 29, 32, and 33; T28N, R10E, Sections 1, 3, 4, 10, 15, 22, 23, 27, and 34; T28N, R11E, Sections 6 and 7; Mount Diablo Meridian (Figure 1).

The Moonlight Hand Thinning Project will hand thin conifers and brush and will hand pile the natural and activity generated surface fuels along designated Forest Service roads for the purpose of removing ladder fuels and increasing canopy base heights within the treated stands. Design parameters for this proposed action are:

- All trees <6" diameter breast height (dbh) and all brush will be cut within a 500 foot buffer along designated roads outside of California spotted owl and goshawk Protected Activity Centers (PACs), and within a 200 foot buffer along designated roads within owl and goshawk PACs.
- Cut material will be hand pile and burned, or mechanically chipped.
- Remaining conifers within these road buffers will be limbed (pruned) to increase the canopy base height to 5-6 feet high. Cut limbs will be hand piled and burned, or mechanically chipped.
- All piled material will be bucked into 4 foot lengths and smaller.
- All piles will be piled away from the boles (drip line) of the leave trees.
- Fire lines would be constructed for pile burning operations, except where existing roads, skid trails, or natural barriers will serve as control lines.
- Within plantations bisected by the roadside treatment areas in road sections 3 and 4, approximately 110-150 trees per acre will be retained, based on an average spacing of 17 to 20 feet. In addition, pruning leave trees within these plantations will retain 30-40% of the bole in canopy, with limbs cut flush and smooth with the bole. All cut material will be piled outside the drip line of leave trees, and piles will be burned in stages, as needed, to avoid damaging residual trees.

The following Integrated Design Features (IDFs) are resource protection measures that were developed by specialists and incorporated as part of the proposed action for this project. They are in addition to applicable Best Management Practices (BMPs) included within the hydrology report for this project (project record). These IDFs are also included for implementation parameters that will be incorporated into treatments, contracts, or used to guide Forest Service personnel in conducting implementation.

Fuels

1. Hand pile construction and pile burning will not occur within wet or dry meadow areas, or where graminoid and forb indicator species of a wet site are present.
2. In aspen and cottonwood communities, hand piles will be located either outside of mapped stands, or at least 20 feet from any live tree or sprout greater than three feet tall. Where surface fuels concentrations are low, material can be lopped and scattered within these stands.

Cultural Resources

3. All historic properties within APEs shall be clearly delineated prior to implementing any associated activities that have the potential to affect historic properties.
 - a) Historic property boundaries shall be delineated with coded flagging and/or other effective marking.
 - b) Historic property location and boundary marking information shall be conveyed to appropriate Forest Service administrators or employees responsible for project implementation so that pertinent information can be incorporated into planning and implementation documents, contracts, and permits (e.g., clauses or stipulations in permits or contracts as needed).
4. All historic properties eligible or potentially eligible for listing on the National Register of Historic Places (i.e., Class I and Class II properties) within the project area will be protected by employing Standard Resource Protection Measures (SRPM) as defined in the Regional Programmatic Agreement. Standard Protection Measures from Regional PA Appendix E section 2.2(b) include,
 - a) For fire, and hazardous fuels and vegetation management projects, HPM[Heritage Program Manager]/DHPS [District Heritage Program Specialist], in conjunction with fuels, vegetation management, or fire specialists as necessary, shall develop treatment measures for at risk historic properties (as defined in SHPO approved Region 5 modules and agreements) designed to eliminate or reduce potential adverse effects to the extent practicable by utilizing methods that minimize surface disturbance, and/or by planning project activities in previously disturbed areas or areas lacking cultural features.
5. The following standard protection measures apply to fire, hazardous fuels, and vegetation management projects:
 - a) Fire crews may monitor sites to provide protection as needed.
 - b) Fire lines or breaks may be constructed off sites to protect at risk historic properties.
 - c) Vegetation may be removed and fire lines or breaks may be constructed within sites using hand tools, so long as ground disturbance is minimized, and features are avoided, as specified by HPMs or qualified Heritage Program staff during fire emergencies (see Stipulation 7.11).
 - d) Trees that may impact at risk historic properties should they fall on site features and smolder can be directionally felled away from properties prior to ignition, or prevented from burning by wrapping in fire shelter fabric or treating with fire retardant or wetting agents.

- e) Vegetation to be burned shall not be piled within the boundaries of historic properties unless locations (e.g., a previously disturbed area) have been specifically approved by HPMs or qualified Heritage Program staff.
 - f) Woody material may be chipped within the boundaries of historic properties so long as the staging of chipping equipment on-site does not affect historic properties and staging areas are specifically approved by HPMs or qualified Heritage Program staff.
6. When any changes in proposed activities are necessary to avoid historic properties (e.g., project modifications, redesign, or elimination; removing old or confusing project markings or engineering stakes within site boundaries; or revising maps or changing specifications), these changes shall be completed prior to initiating any project activities. (RPA section 1.4 page E-3)
 7. If cultural resources are identified during project implementation (unanticipated discovery) all work will cease immediately in that area until the situation is reviewed and an assessment and mitigation plan instituted to insure protection of the site.

Wildlife

8. Retain all snags over 10" dbh. Buffer work away from larger diameter snags that implementation crews identify as safety hazards.
9. Downed wood retention will be emphasized in the largest size classes (including both diameter and length) and in decay classes 1, 2, and 3. Retention levels will be:
 - a) In eastside pine stands, downed woody material will be retained at 1.5 pieces of downed wood per acre. Of these, one will be in the 24+ inch size class. The 0.5 can be in the 15 to 24 inch size class. As an example: in a 10 acre area, 15 pieces will be retained, 10 of which will be in the 24+ inch size class, 5 could be from the 15 to 24 inch size class.
 - b) In mixed-conifer or fir stands, downed woody material will be retained at 3.0 pieces of downed wood per acre. Of these, two will be in the 24+ inch size class, and one can be in the 15 to 24 inch size class.
10. California spotted owl limited operating period: When within spotted owl PACs or within 0.25 miles of a spotted owl nest tree, adhere to a limited operating period (LOP) of March 1 through August 15, unless surveys confirm that spotted owls are not nesting.
11. Within the Lights Creek/Willard Hairpin PAC, leave patches and/or scattered small diameter conifers unthinned within a 100 ft. radius of the nest tree location to provide cover for fledgling spotted owls.
12. Northern goshawk PAC limited operating period: When within northern goshawk PACs or within 0.25 miles of a northern goshawk nest tree, adhere to a limited operating period (LOP) of February 15 through September 15, unless surveys confirm that northern goshawks are not nesting.

Botany - Threatened, Endangered, Sensitive (TES) Plant Species

13. New occurrences of Threatened, Endangered, or Sensitive (TES) plant species discovered before or during ground-disturbing activities will be protected through flag-and-avoid methods.
14. No ground-disturbing activities, including construction of hand line, will take place within occurrences of *Penstemon sudans* or *Hackelia amethystina*, including thinning, piling, burning, and chipping.

Botany - Noxious Weeds

15. All off-road equipment will be weed-free prior to entering the Forest. Staging of equipment will be done in weed-free areas.
16. Known noxious weed infestations will be identified, flagged where possible, and mapped for this project. Identified noxious weed sites within or adjacent to the project area containing isolated patches with small plant numbers will be treated (hand-pulled or dug) prior to project implementation.
17. New small infestations identified during project implementation will be evaluated and treated according to the species present and project constraints and avoided by project activities.
18. Post-project monitoring for implementation and effectiveness of weed treatments and control of new infestations will be conducted as soon as possible and for a period of two years after completion of the project.
19. If project implementation calls for mulches or fills, they will be certified weed-free.
20. No project activities will occur within 20 feet of any occurrence of spotted knapweed (*Centaurea maculosa*).
21. No thinning will occur within 20 feet of any occurrence of dyer's woad (*Isatis tinctoria*) or medusahead (*Taeniatherum caput-medusae*), but piling and burning may be done.
22. No project activities will occur within any occurrence of oxeye daisy (*Leucanthemum vulgare*) or Canada thistle (*Cirsium arvense*).

Riparian Conservation Areas

23. Riparian Conservation Area (RCA) widths are allocated along all streams, wetlands, wet meadows, and other special aquatic features in accordance with the 2004 Sierra Nevada Forest Plan Amendment (SNFPA) Record of Decision (ROD). Features are as described in the table below, and a map showing hydrologic features in the project vicinity can be found in the hydrology report (project record).

RCA Type	RCA Width	Features within Project Area
Special Aquatic Features (wet meadows, springs)	300 feet from edge of feature or riparian vegetation, whichever width is greater	Small stringer wetlands and meadows associated with streams; seeps and springs
Perennial Streams	300 feet (each side of stream), measured from	Willard Creek, West Fork Willard Creek, Middle Willard Creek, Roxie

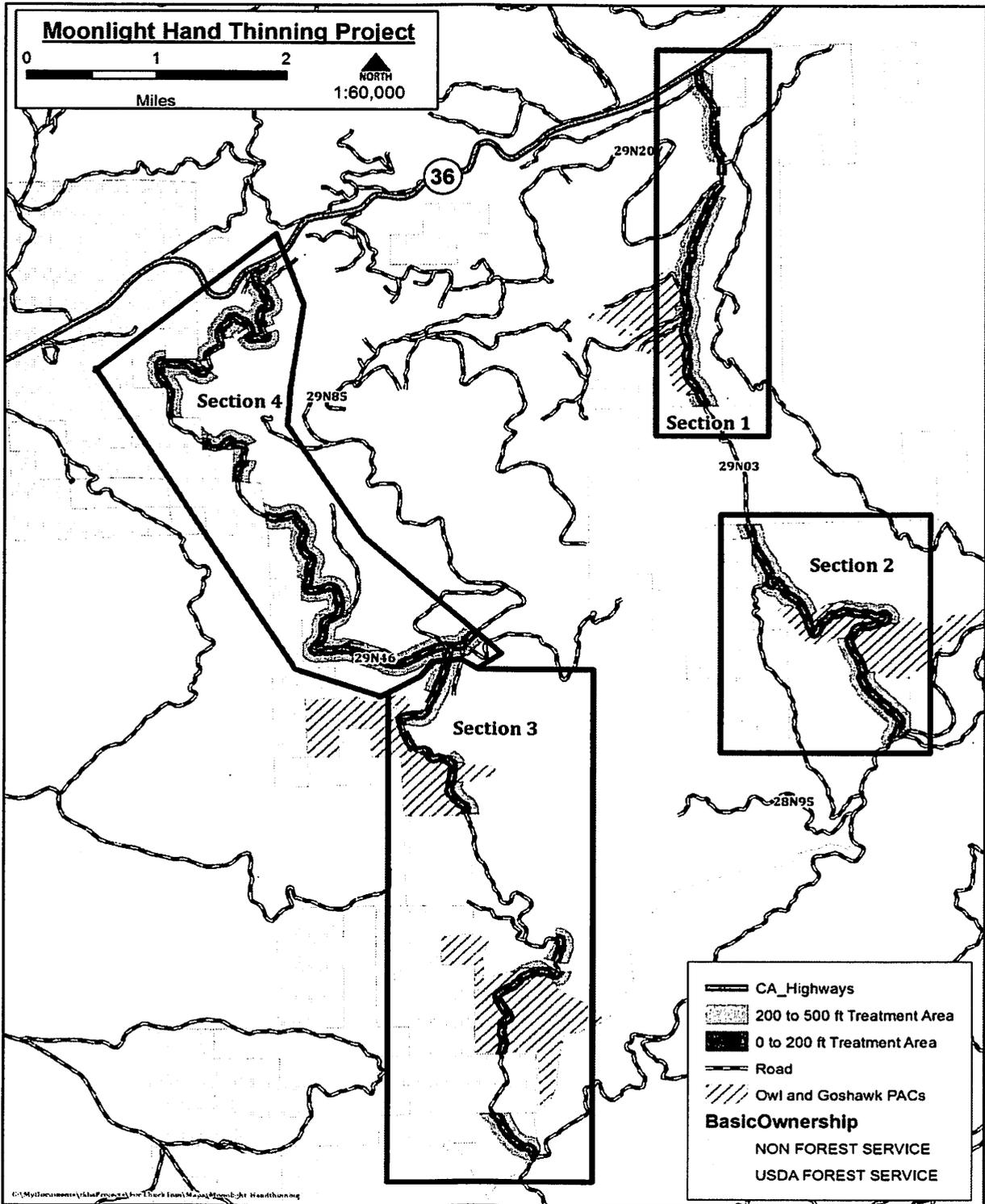
	bankfull edge of stream	Peconom Creek
Seasonally Flowing Streams (includes ephemerals with defined stream channel and evidence of scour)	150 feet (each side of stream) measured from bankfull edge of stream	Duffy Creek, unnamed tributaries to: Willard Creek, Goodrich Creek, Mountain Meadows Creek

24. Hand piling of burn piles will not occur within the inner 30 feet of seasonal RCAs or 50 feet of perennial and special aquatic feature RCAs.
25. Hand line construction within the Riparian Conservation Areas (RCA) is acceptable, as long as it is constructed outside the inner 30 foot zone for seasonal RCAs and 50 foot zone for perennial and special aquatic feature RCAs. If needed, wet line will be used.
26. Riparian species (aspen, cottonwood, alder, willow, dogwood, etc.) will not be removed.
27. Chipped material within RCAs may not exceed an average of two inches in depth, with a maximum depth of four inches, and material may not be deposited within stream channels or other waterbodies.
28. Soil conditions must be operable for mechanical equipment to enter RCAs where needed for chipping. Under moist or wet conditions, equipment may not create ruts exceeding two inches in depth and 25 feet in length. No ruts exceeding three inches in depth are allowed, and equipment may not enter when soils are saturated.
29. A 25 foot "no mechanical equipment" buffer will be designated along all stream channels and waterbodies where mechanical chipping operations will occur.

Silviculture

30. Pile all material away from the boles (drip line) of the leave trees along the Douglas-fir tussock moth trap lines in road section 2.
31. Pile all material away from the boles (drip line) of rust resistant sugar pine (RRSP) trees and candidates along road section 2.
32. In plantations along road sections 3 and 4, the 110-150 trees to be retained per acre can be adjusted by as much as 25% to ensure that the species preferred (while also considering the tallest, healthiest trees) are retained.

Figure 1. Project Map:



Category of Exclusion

The project is within category 36 CFR 220.6(e)(6).

This action is categorically excluded from documentation in an environmental impact statement or an environmental assessment because:

There are no flood plains, wetlands, or municipal watersheds; there are no Congressionally designated areas such as wilderness, wilderness study areas or national recreation areas; there are no inventoried roadless areas, research natural areas, or American Indian and Alaska Native religious or cultural sites.

The necessary archaeological, botanical, and wildlife surveys and documents, hereby incorporated by reference, have been completed and can be found in the Moonlight Hand Thinning Project record at the Eagle Lake Ranger District office.

- Biological Evaluation for the Moonlight Hand Thinning Project [terrestrial and aquatic species], 05/31/2016
- Management Indicator Species Report for the Moonlight Hand Thinning Project, 02/17/2016
- Migratory Landbird Conservation on the Lassen National Forest, Moonlight Hand Thinning Project Assessment, 02/17/2016
- Cultural Resources Report, Moonlight Hand Thinning Project, 05/23/2016
- Hydrology Report for the Moonlight Hand Thinning Project, 01/28/2016
- Biological Evaluation for R5 Forest Service Sensitive Plant Species, Moonlight Hand Thinning Project, 07/07/2016
- Invasive Plant Species Risk Assessment, Moonlight Hand Thinning Project, 07/07/2016
- Silvicultural Memo, 01/19/2016
- Soils Memo, 01/20/20/2016
- Fire and Fuels Report, 06/28/2016

Federally listed Threatened or Endangered species or designated Critical Habitat, species Proposed for Federal Listing or Proposed Critical Habitat, or Forest Service Sensitive species:

1. Terrestrial and Aquatic species:

Due to the project area being outside the range of the species, or due to the lack of suitable habitat or habitat components in the project area, it was determined that the Moonlight Project would have no effect on the following Federally Listed threatened or endangered species or their critical habitat:

Gray wolf, northern spotted owl, valley elderberry beetle, Central Valley steelhead DPS, Central Valley chinook salmon ESU, Delta smelt, Winter-run chinook salmon ESU, Sierra Nevada yellow-legged frog, California red-legged frog, Shasta crayfish, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, and giant garter snake.

Due to the project area being outside the range of the species, or due to the lack of suitable habitat or habitat components in the project area, it was determined that the Moonlight Project would have no effect on the following Forest Service Sensitive species:

Northern bald eagle, California wolverine, American marten, Pacific fisher, Sierra Nevada red fox, Townsend's big-eared bat, great gray owl, willow flycatcher, greater sandhill crane, yellow rail, Shasta hesperian snail, foothill yellow-legged frog, Cascade frog, northwestern pond turtle, California floater, Great Basin rams-horn, scalloped juga, topaz juga, montane peaclam, nugget pebblesnail, black juga, kneecap lanx, Goose Lake redband trout, hardhead, Pacific lamprey, and Eagle Lake rainbow trout.

The Proposed Action would have negligible effects for the following species and their habitats. Therefore, it was determined that the Moonlight Project may affect individuals of the following FS Sensitive species, but is not likely to result in a trend towards federal listing or loss of species viability:

California spotted owl, northern goshawk, pallid bat, fringed myotis, and western bumble bee

(Biological Evaluation for the Moonlight Hand Thinning Project, 05/31/2016)

There are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS for Terrestrial and Aquatic species.

2. Botanical species:

It was determined that the Proposed Action for the Moonlight Hand Thinning Project may affect individuals of *Penstemon sudans* but is not likely to result in a trend toward Federal listing as Threatened or Endangered or a loss of viability for the species.

It was also determined that the project would have no effect on any other Region 5 Forest Service Sensitive Plant species because there are no known occurrences of these species within the project area (Appendix A).

(Biological Evaluation for R5 Forest Service Sensitive Plant Species, Moonlight Hand Thinning Project, 07/07/2016)

There are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS for Botanical species.

Cultural Resources:

Activities associated with this alternative would comply with the National Historic Preservation Act (NHPA) of 1966, as amended and implementing regulations 36 CFR 800. Tribal communities would continue to be consulted for any concerns regarding this project. Protection of cultural resources would also comply with the Regional Programmatic Agreement as referenced above. SRPM as outlined in the Regional PA would be followed throughout the duration of project activities. Provided that SRPMs are applied, all project impacts would avoid historic properties. Following such protective measures, no adverse effects to the known sites are anticipated. (Cultural Resources Report, Moonlight Hand Thinning Project, 05/23/2016)

Based on surveys, integrated design features incorporated into the project and the completed analysis for the project, I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS.

The scope and duration of the project is limited: total affected area is about 1,528 acres, tree removal is by hand thinning only, and duration of activities is expected to be spread out over several years (approximately 2017 to 2022).

Scoping and Public Involvement

The proposal was provided to the public and other agencies in the Schedule of Proposed Actions (SOPA) on January 1, 2016. The scoping period for the proposed action was May, 2016. The project proposal was presented to the Susanville Indian Rancheria on January 13, 2016.

Findings Required by Other Laws

My decision complies with the National Forest Management Act of 1976 and all other applicable laws and regulations, including:

The Lassen National Forest LRMP as amended:

This decision is consistent with the 1992 *Lassen National Forest Land and Resource Management Plan* (LRMP) and 1993 *Record of Decision* (ROD) as amended by the 2004 *Sierra Nevada Forest Plan Amendment* (SNFPA) FSEIS and ROD, the *Sierra Nevada Forests Management Indicator Species* (SNF MIS) Amendment FEIS and ROD (2007).

Endangered Species Act:

This decision is consistent with the Endangered Species Act as found in the wildlife, aquatic, and sensitive plants biological evaluations and biological assessments.

Clean Water Act as amended:

All federal agencies must comply with provisions of the Clean Water Act. The Clean Water Act regulates forest management activities near Federal surface waters and riparian areas. The Proposed Action meets the terms of the Clean Water Act for non-point sources of pollution, primarily pollution caused by erosion and sedimentation. Compliance with the Clean Water Act is accomplished through implementation of Best Management Practices for National Forests in California.

Clean Air Act as amended:

The Moonlight Hand Thinning Project is compliant with provisions of the Clean Air Act. Burning of piles implemented under the Project will be completed under approved burn plans and smoke management plans. Particulate concentrations are regulated through compliance with the local air quality management district (AQMD) and the California Air Resources Board (CARB).

Executive Order 13112 Invasive Species 64 FR 6183 (February 8, 1999):

Consistent with this order, the Moonlight Hand Thinning Project has incorporated feasible and prudent mitigation measures to minimize risk of harm caused by invasive plant species. Anticipated invasive plant species response to the Project is low to moderate for potential spread (Invasive Plant Species Risk Assessment, Moonlight Hand Thinning Project, 07/07/2016).

Administrative review or appeal opportunities

This categorically excluded decision is not subject to legal notice & comment and appeal procedures pursuant to Section 431 of the Consolidated Appropriations Act of 2014 and Section 8006(a)&(b) of the Agricultural Act (Farm Bill) of 2014.

Implementation Date

Project implementation may begin immediately.

Contact Person

For additional information concerning this decision, contact Chuck Lewis, District Fuels Specialist, Lassen National Forest, (530) 257-4188.



MATTHEW BOISSEAU Date 8/5/16
District Ranger
Eagle Lake Ranger District
Lassen National Forest

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