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Record of Decision

Thom-Seider Vegetation Management and Fuels Reduction Project

Happy Camp and Oak Knoll Ranger Districts, Klamath National Forest,
Siskiyou County, California



Township (T)16N, Range (R) 7E, Sections 1, 2, 11-14 and 24; T17N, R7 E., Sections 1, 2, 11-13, 24, 25, 35, and 36; T18N, R7E, Sections 1-3, 10-15, 22-26, 35 and 36; T19N, R7E, Sections 33-36; T16N, R8E, Sections 4-6, 7-9, 15-18, 19-20 and 28-30; T17N, R8E, Sections 4-6, 7-9, 16-21, and 28-33; T18N, R8E, Sections 7-9, 16-21, and 28-33; Humboldt Meridian. T45N, R10W, Sections 6 and 7; T46N, R10W, Sections 19, 29, and 30-32; T45N, R11W, Sections 1-18; T46N, R11W, Sections 3-10 and 13-36; T47N, R11W, Sections 7-10, 15-22, and 27-34; T45N, R12W, Sections 1-21; T46N, R12W, Sections 1-36; T47N, R12W, Section 7, 8, and 13-36; Mount Diablo Meridian.

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Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

Happy Camp and Oak Knoll Ranger Districts, Klamath National Forest

Siskiyou County, California

Background

Land managers for the Klamath National Forest have been planning the Thom-Seider Vegetation Management and Fuels Reduction Project (Thom-Seider) for several years to respond to the increasing density and fuels hazard evident along the Klamath River between Hamburg and Happy Camp, California. Thinning and burning is proposed on about 29,300 acres of National Forest System (NFS) land within and adjacent to the Wildland Urban Interface (WUI). Planning of this project was conducted under the 2003 Healthy Forest Restoration Act (HFRA). The HFRA was created to reduce administrative delays and expedite implementation of projects for community protection such as this project.

Implementation of this project is needed to address differences between the existing conditions and the desired conditions described in the *Klamath National Forest Land and Resources Management Plan* (Forest Plan; 1995, as amended). The purpose and need for this project is summarized in section 1.3.5 on page 12 of the Thom-Seider Vegetation Management and Fuels Reduction Project Final Environmental Impact Statement (FEIS). In addition to Forest Plan guidance, the purpose and need includes several of the recommendations from non-decision documents such as the Thompson/Seiad/Grider Ecosystem Analysis (USDA Forest Service, 1999a), the Klamath National Forest Forest-Wide Late-Successional Reserve Assessment (USDA Forest Service 1999), and relevant best available scientific information about the principles of effective fuel treatments (FEIS, section 1.3). Stands proposed for treatment are in early, mid, and late-mature seral stages. All stands proposed for treatment have high stocking levels, which are reducing tree vigor and growth rates. Many stands are losing large Douglas-fir, ponderosa pine, and sugar pine as a result of competition with the smaller trees in the stands and bark beetles. Many of the stands needing treatment have dense understories that are contributing to high stocking levels and an increased risk of damage from stand-replacing wildfire. The purpose and need is to: (1) reduce tree density and forest competition in order to maintain/restore forest health and vigor and retain the larger trees across the landscape; (2) raise canopy height and reduce surface and ladder fuels to reduce potential for crown fire including areas within the WUI, especially directly adjacent to private property and communities; and (3) decrease fuels along important access roads to allow ingress and egress during fire events, as well as increase effectiveness of roads as safe anchors for fire suppression activities.

This record of decision (ROD) is based upon analysis documented in the FEIS, supporting documentation, and subsequent analysis as documented in Appendix D of this ROD. The ROD contains minor modifications in treatments since the objection period and some additions to the project record since publication of the FEIS (ROD, Appendix D). The FEIS presents the analysis of the proposed action alternative and a no action alternative (FEIS, sections 2.2 and 2.3). HFRA allows development of a proposed action and additional alternatives depending on the type of project. Several other alternatives were considered, but not developed for further analysis, generally because they were outside the scope of this HFRA project, were duplicative of the alternatives considered in detail, or included components that would cause unnecessary environmental harm (FEIS, section 2.5). Changes between supporting documentation and FEIS were minimal; no new alternatives were developed between the Thom-Seider Vegetation Management and Fuels Reduction Project Draft Environmental Impact Statement (DEIS) and

FEIS (see FEIS, section 1.7). In the DEIS and FEIS reference is made to non-system roads. The record of Decision for Motorized Travel Management on the Klamath National Forest prohibits cross-country travel and eliminates the category of non-system roads. All references to non-system roads in the DEIS and FEIS should be interpreted as being temporary roads on existing roadbeds.

To view the Thom-Seider ROD, FEIS, or documents or maps associated with this project electronically, please visit the Klamath National Forest Website at: <http://fs.usda.gov/klamath>. Select “land and resource management,” select “projects,” and then select “view a listing of all projects” to navigate to this project. The ROD is also available for review at the Happy Camp/Oak Knoll Ranger District office (63822 Highway 96, Happy Camp, CA 96039; 530-493-2243) or the Klamath National Forest Supervisor’s Office (1312 Fairlane Road, Yreka, CA 96097; 530-842-6131).

Decision

Based on my thorough review of the FEIS and supporting documents, I have decided to implement the proposed action or alternative 2, as described in section 2.3 of the FEIS, with some minor modifications. This modified alternative will from hereafter be referred to as the “selected alternative”.

For my decision I considered public and agency comments received throughout the HFRA process. Minor modifications to the proposed action were agreed upon during the 30-day objection period under HFRA (36 CFR part 218, subpart A) and are incorporated into my decision to implement the selected alternative as follows:

Eleven (11) acres of treatment in units 36 and 37 are changed from variable density thinning-commercial (helicopter yarding) to underburning only.

Seventy-five (75) acres of treatment in unit 277 are changed from variable density thinning-commercial (helicopter yarding) to non-commercial thinning and underburning.

These modifications to the selected alternative are minor and are within the scope of the FEIS analysis for the proposed action. The 86 total acres of modified treatments in the selected alternative (described above) will reduce stand density and ladder fuels and are consistent with the purpose and need of the project. Additional information on the objection is documented in Appendix D of this ROD.

In addition to the modifications to the selected alternative during the objection period, 298 acres of non-commercial thinning and 253 acres of underburning that were analyzed in the FEIS were authorized under a separate NEPA Decision. The Grider Pre-commercial Thinning Decision Memo (DM) was prepared to implement treatments prior to this decision to implement wildlife habitat improvement activities using available funding sources. The DM, which is available at the Happy Camp/Oak Knoll District Office was signed June 17, 2010 and incorporated by reference the FEIS analysis and treatments for units 195, 196, 205, 312, and A75. Implementation for the units included in the DM began in August 2010 and is currently on-going. The activities under the DM are being implemented independently from those remaining in the FEIS. All potentially connected actions and their cumulative impacts of these actions included in both the separate DM and this ROD were all analyzed under the Thom-Seider FEIS (40 CFR 1508.25).

My decision to implement the selected alternative authorizes about 29,300 acres of treatment within the 132,000-acre project area on National Forest System lands. Treatments include about 22,000 acres (17 percent of the project area) located primarily within the WUI Defense and Threat Zones; variable density thinning on about 1,800 acres; and understory thinning along 77 miles of roads. Please note, the Forest Service will permit landowners (upon request) to perform understory thinning and hand piling on

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NFS land within 500 feet of their private property after completing a written agreement with the Forest Service. See Table 1 in this ROD for a summary of key treatment elements, Appendix A for a map of the selected alternative, and Appendix B for associated treatment tables.

Implementation of the project can begin immediately following this decision and is expected to last ten years or more. This landscape scale project is intended to reduce the potential for damaging wildfire and maintain and restore older forest habitat over a large area.

Table ROD-1. Key Treatment elements of the Selected Alternative

| Thinning and Burning | Acres* |
|---|---------------------------------|
| Total Acres that would be treated | 29,300** |
| Portion of the project Within the WUI | 99% |
| Underburning | 22,000 |
| Roadside Fuels Treatment | 2,700 |
| Private Property Boundary Understory Thinning | 6,000 |
| Variable Density Thinning – Non-commercial | 300 |
| Variable Density Thinning – Commercial | 1,500 |
| Roads and Landings | Features |
| Temporary roads needed for commercial thinning | 9 segments, 1.5 total miles *** |
| Landing Sites | 208 total landing sites |
| Landings that Require New Construction | 40 new landings, 14 total acres |
| Landings that Require Limited New Construction (on roads or existing landing sites) | 168 |

*Treatment acres and miles are approximate.

**Overlapping acres that have more than one treatment have been removed.

***Many of these areas have been previously disturbed or are otherwise devoid of larger trees; fewer than 4 acres of new disturbance is proposed.

Decision Rationale

The FEIS documents the analysis upon which my decision is based. Some key conclusions to support the rationale for my decision are described below.

The selected alternative meets the purpose and need of this project as follows:

Thinning within about 10,500 acres is proposed to reduce stand density to below the threshold of imminent mortality and includes about 1,500 acres of commercial thinning and 9,000 acres of non-commercial thinning in Late-Successional Reserves (LSR), along strategic roadsides, and within 500 feet of the surrounding private property. This thinning would maintain stand vigor and reduce the risk of infestation by several insects and diseases, including bark beetles. Thinning of the smaller trees decreases competition on the larger and older trees for water and nutrients and consequently older trees are more likely to be maintained in the stands for a longer period of time. Similarly, thinning in combination with the fuel treatments within the LSR would improve the probability that early and mid-successional stands will develop into late-successional stands. Proposed treatments within the LSR would maintain an average canopy cover of 60 percent in commercially thinned stands to sustain habitat after thinning. About 650 acres of commercial thinning will result in stand densities that are kept below the zone of imminent mortality for 20 years or more. The majority of thinning, which is mostly non-commercial thinning, would reduce density to below this level for 10 to 20 years.

The selected alternative will reduce the potential of crown fire from an existing 83 percent of the project area down to 66 percent of the project area. Within the WUI, treatments will decrease the potential crown fire potential on 25,465 acres, a 21 percent reduction. The reduction will be achieved through the 10,500 acres of thinning mentioned above and approximately 22,000 acres of underburning. These activities will reduce the surface and ladder fuels in all treatment units.

Approximately 2,700 acres of non-commercial thinning within the project will be along strategic access roads. Combined with other stand treatments, underburning, and the variable density thinning along these roads, this decision would reduce crown fire potential along 77 miles of access roads used for ingress and egress. The treatments would also provide improved effectiveness of the roads to use as holding lines during future wildfires.

I recognize the selected alternative will thin about 379 acres within mid to late mature forest using cable systems, including about 248 acres planned in LSRs. Nine segments (1.5 miles) of new temporary roads are proposed, resulting in about four acres of new disturbance that may result in the loss of some larger trees. Commercial thinning below 60 percent canopy cover is planned on 535 acres in Matrix (FEIS, Table 10, p. 43), so only 0.6 percent of about 83,000 acres considered mid-and late-successional forest within the analysis area will be thinned to below 60 percent canopy cover. The selected alternative will maintain adequate habitat for Threatened species such as the northern spotted owl (NSO) (FEIS, section 3.10). Several design features apply to LSR, NSO core areas, and Critical Habitat (FEIS, section 2.3.8).

Direct, indirect, and cumulative effects were addressed for each resource area potentially affected by the project. Analysis in the FEIS included interrelated and interdependent actions such as temporary roads and landings. The project record, including the FEIS, specialist reports, and other supporting documentation documents the scientific information considered for this decision. Scientific information considered includes, but is not limited to, papers, reports, literature reviews, review citations, peer reviews, science consistency reviews, opposing views, and results of ground-based observations, which were considered to ensure the use of best available science for this project and analysis.

All practical means to avoid or minimize environmental harm from the selected alternative have been adopted through project design features (ROD, Appendix C), incorporation of the best management practices (FEIS, Appendix B), and monitoring (FEIS, section 2.4.9).

The Council on Environmental Quality's (CEQ) regulations require that records of decision specify "the alternative or alternatives which were considered to be environmentally preferable" (40 CFR 1505.2 (b)). Ordinarily this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative must be one of the alternatives analyzed in the FEIS. Pursuant to the regulations, I identify the selected alternative, the modified proposed action, as the environmentally preferable alternative, because it will enhance forest health, reduce the potential for stand-replacing wildfire, protect and enhance wildlife habitat, and reduce potential for damaging fire behavior within the project area, especially the WUI.

The selected alternative is designed to conform to Forest Plan goals, meet or move treatment areas toward the desired conditions, and comply with standards and guidelines for Forest-wide management direction (FEIS, section 1.2.1). The selected alternative is consistent with applicable laws, regulations, and policies (FEIS, section 3.9). See Findings Required by Other Law and Regulation (ROD, p. 6) for more detail.

Other Alternatives Considered

The FEIS analyzed a no action alternative (Alternative 1) in detail. Based on public comment, ten other alternatives were considered, but eliminated from detailed study (FEIS, section 2.5). These ten alternatives in their entirety were determined to be either outside the scope of the need for the project, had included components that would cause unnecessary environmental harm, or were duplicative of alternatives or portions of alternatives considered in detail. A number of elements from several of the alternatives were incorporated into alternative 2 and later, the selected alternative.

Under alternative 1, no treatment was proposed and current management plans would continue to guide management of the project area. In summary, selection of alternative 1 would not meet the purpose and need because:

- There would be no reduction in forest density. Density related mortality would increase, bark beetle related mortality would increase, and disease presence and impacts would increase. Many of the larger and older trees within the stands would be lost, including stands within the LSR. The development of early- and mid-successional stands into old-growth would be slowed, if not stopped, and old-growth components in the stands would be reduced.
- Currently, 83 percent of the project area has the potential for crown fire. Surface and ladder fuels and consequent crown fire potential would continue to increase beyond the current condition. About 86 percent (89,500 acres) of the WUI is associated with crown fire potential, which could lead to moderate to severe burning in the event of a wildland fire. The potential for crown fire within WUI, especially adjacent to private property and communities, would not be directly addressed or mitigated.
- Fuels would not be treated along access roads. These roads are used as safe anchors for fire suppression activities and allow ingress and egress during fire events. Therefore, the effective use of these roads for these purposes would continue to decline as vegetation continues to grow and ground fuels accumulate.

For a comparison of environmental impacts between alternative 1 and alternative 2, please refer to Table 10 on page 42 of the FEIS. The thinning treatments under the selected alternative has been reduced by approximately 86 acres as compared to alternative 2 as documented on page 5 of this ROD, however the environmental impacts remain essentially the same and the comparative percentages of treatments overall have not changed.

Public Involvement

Project development and planning has been on-going for several years. The communities and forests associated with this project have been known to be susceptible to damaging wildfire for some time. The Forest Service worked with Siskiyou County; Seiad Valley Fire Safe Council; industry groups; environmental groups; local residents; federal, state, and local agencies; the Karuk tribe; and the general public to develop a proposed action that would best address the project's purpose and need and meet Forest Plan direction, while addressing the concerns of interested and affected parties. Local landowners within the project area were contacted along with other interested people. Public meetings were held in 2007 and 2008 to explain the proposed action, answer questions, and hear comments. The Forest Service received over 150 correspondences pertaining to the project by March 2008. The letters indicated a diversity of interests associated with the proposed action.

In response to the comments received, the Forest Service hosted two days of field collaboration meetings in July 2008 to address points of disagreement about the proposed action. The district ranger and other Forest Service staff discussed the project with interested and affected parties and made several modifications to the proposed action.

The draft environmental impact statement (DEIS) for this project was distributed in spring of 2009 and eight letters were received during the comment period. Comments on the DEIS indicated there was still controversy over the project. Three environmental groups, the Klamath Siskiyou Wildlands Center (KSWild), the Klamath Forest Alliance (KFA), and the Environmental Protection Information Center (EPIC), sought canopy retention requirements, reduced acreage for commercial thinning, additional diameter limitations, and road decommissioning (FEIS Appendix C, pgs.319-335). Several alternatives were considered that addressed these concerns, but were not developed in detail (FEIS, sections 2.51, 2.52 through 2.54 and 2.59). Based upon discussion and comments received, the largest concern for these groups appeared to be that at least 60 percent canopy cover be retained post harvest in four units (totaling 50 acres) outside of LSR that currently contain late-successional forest characteristics. After the thinning prescriptions were refined and riparian buffers were marked on the ground, the Forest Service determined that a majority of those acres would retain 60 percent canopy after treatment; the remaining acres were on dryer sites with a larger percentage of pine that will benefit from the heavier thinning. This condition was accepted during the objection process (see Appendix D of this ROD for more information on the objection). The commercial thinning component for one 75-acre helicopter unit in LSR was also eliminated during resolution of the Thom-Seider objection. Originally, approximately 5,000 acres that could be commercially thinned were identified within the Thom-Seider project area. After review by specialists in 2007 and public scoping, around 3,500 acres of thinning were eliminated from the project for a variety of environmental and economic reasons. As the product market continued to decline making more units economically infeasible and additional project design features were developed, the project commercial thinning was reduced to around 1,600 acres (the selected alternative was further reduced to approximately 1,500 acres during settlement of the objection) within a 132,000-acre project area. Because thinning followed by post-harvest fuel treatment has been shown to be the most effective way to reduce the risk of stand damage during wildfire (FEIS, section 3.3.1), the Forest

Service chose not to further reduce the commercial thinning acreage. A diameter limit of 20 inches was included in the project for all LSR units. Outside of LSR units, constraints such as diameter limits would have reduced the ability to site-specifically treat each stand in the most effective way possible and to best meet the project purpose and need. The largest trees are more likely to be maintained in the stands after thinning and fuels treatment with the reduction in both density and fire hazard. An additional diameter limit was not adopted during the objection process and this was accepted by the objectors. Road density was also a concern. Although road decommissioning is outside the scope of this HFRA project, during the objection process, an agreement was reached between the Forest Service and the objectors that a field trip would be conducted to review additional opportunities in the Thom-Seider project area for decommissioning or storm proofing.

Oregon Wild submitted a comment letter with many general suggestions for considerations in planning fuels reduction and forest health restoration thinning projects. The letter did not make any specific references to or recommendations for this project.

American Forest Resource Council (AFRC) expressed concern about economic viability and effectiveness of the project and suggested alternatives for improvement (heavier cutting, removing of some larger trees). An alternative was considered that addressed these concerns. The potential annual growth increase and timber volume production of such an alternative was analyzed, however an alternative was not fully developed (FEIS, section 2.5.5). Some elements of their recommendations were incorporated into alternative 2 in treatment units where a sustained flow of timber products is a management goal and heavier thinning would better meet the project purpose and need. In other management areas, recommendations were not consistent with project objectives or mitigations for other forest resources such as the northern spotted owl (NSO), fisheries, and a few sensitive plant species.

The United States Environmental Protection Agency (EPA) discussed the range of alternatives in their comment letter and acknowledged that the Forest Service may have elected to limit the number of alternatives as allowed under the HFRA. The EPA did recommend the development of another alternative that reduced thinning and underburning to minimize adverse environmental impacts. The Forest Service chose to modify the original proposed action to address environmental concerns about the project rather than develop other alternatives. Within the 132,000 acre project area, the selected alternative proposes commercial thinning on only 1,500 acres. The remainder of the thinning will be mostly understory thinning or thinning from below of trees less than about twelve inches diameter at breast height (DBH); two-thirds of this thinning would be directly adjacent to private property (ROD, Table 1). The 22,000 acres of underburning will be implemented over a period of ten years or more. Further reductions in treatment acreage or intensity to further minimize adverse short-term effects could render the project less economical, feasible, or effective. The selected alternative is consistent with Forest Plan and project goals and objectives and minimizes impacts to the greatest extent that is practical. The Forest Service did address requests from the EPA for additional information and some minor edits (FEIS, Appendix C, p. 340-345).

Upon receipt of comments from the California State North Coast Regional Water Quality Control Board (NCRWQCB), a meeting with the Forest Service was held. As a result of this meeting, a Forest-wide monitoring proposal was developed.

Following the release of the DEIS, the Forest Service met with local resident Chris Anderson to discuss and resolve his concerns about healthy forest densities and fuels reduction.

In compliance with the HFRA process, the FEIS was published and made available to the public for an objection period, beginning November 17, 2009. One objection was filed by a coalition of environmental groups that included KSWild, KFA, and EPIC. AFRC also provided comments during the objection period. Discussions between the Forest Service and those who objected followed. The objection was settled on January 13, 2010 and resulted in some minor modifications to the selected alternative, as previously described in this ROD and summarized in Appendix D.

Findings Required by Other Laws and Regulations

The FEIS fulfills the requirements for environmental analysis found in NEPA and in the CEQ implementing regulations at 40 CFR, Parts 1500-1508. NEPA at 40 CFR 1502.25 (a) directs, “to the fullest extent possible, agencies shall prepare environmental impact statements concurrently with and integrated with...other environmental review laws and executive orders.

The National Forest Management Act (NFMA) requires projects to be consistent with minimum specific management requirements as provided by regulation and direction and as adopted by the Forest Plan. The project was designed in conformance with the long-term goals identified in the Forest Plan (pp. 4-4 - 4-9). The project is consistent with Forest Plan goals, desired conditions, and standards and guidelines for the following management areas in which activities will take place: Special Habitat (LSRs) (pp. 4-82-4-94), Special Interest Area (4-97-4-100), Backcountry Areas (4-103-4-105), Riparian Reserves (pp. 4-106-4-114), Retention Visual Quality Objective (pp. 4-115-4-116), Designated and Recommended Recreational Rivers (pp. 4-120-4-122), Partial Retention Visual Quality Objective (pp. 4-126-4-127) and General Forest (pp. 4-131-4-132).

The selected alternative would be located entirely within NFS lands and is not in conflict with planning objectives for Siskiyou County.

The Multiple Use-Sustained Yield Act, the Forest and Rangeland Renewable Resources Planning Act, and the NFMA direct the national forests to supply goods and services and to be managed for a broad array of resources. Consistent with these guiding laws, the Forest Plan established land allocations and management direction for the Klamath National Forest. The selected alternative does not propose changes in the management of the Klamath National Forest, but rather is a mechanism for implementing management direction. Therefore, the social effects of this single proposal are limited in scope. FSM 1900, Chapter 1970, at 1973 requires a social effects analysis if the potential social effects of Forest Service actions are important to the decision (United States Department of Agriculture (USDA) Forest Service 1992). Social effects are important; however, social effects were not identified as a significant issue in the FEIS, therefore an extensive analysis was not completed nor required (USDA Forest Service 1988).

Executive Order 12898 relating to environmental justice requires an assessment of whether minorities or low-income populations will be disproportionately affected by proposed actions. Proposed actions, including underburning in the selected alternative, were reviewed and there will be no adverse effects on human health or the environment that are significant, unacceptable, or above generally accepted norms and, therefore, there will be no disproportionate effects on minorities or low income populations. Since there are no amendments to the Forest Plan associated with the selected alternative, no further civil rights impact analysis is required (FSM 1730 and FSH 1709.11).

The project will not result in any irreversible commitment of resources. The short-term and long-term impacts, as described in Chapter 3 of the FEIS, involve some irretrievable commitments, including the loss of biomass (which would recover in 10-20 years), loss of productivity in areas cleared for roads and

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landings (limited in extent and to be rehabilitated at the end of the project to hasten recovery), and loss of soil in local areas of accelerated erosion (cumulative watershed impacts have been discussed and vegetation recovery is included in the modeling).

The selected alternative is in accordance with the Secretary of Agriculture Memorandum 1827 for prime farmland, rangeland, and forestland. “Prime” forestland is a term used only for non-Federal land, which would not be affected by proposed activities under either alternative.

I find the selected alternative to be consistent with the Clean Air Act. Smoke management plans will be submitted to the Siskiyou County Air Pollution Control District, and spot forecasts will be used to ensure favorable conditions for smoke transport.

I find the selected alternative to be consistent with the State Asbestos Airborne Toxic Control Measures as sources of ultramafic rock (associated with naturally occurring asbestos) have been identified and mapped within the project area, and potential dust production from ultramafic rock sources has been minimized as described in the Geology Report (De la Fuente 2008, Lewis, 2009).

The selected alternative is consistent and compliant with the Aquatic Conservation Strategy (ACS). Impacts to water quality were analyzed using a cumulative watershed effects (CWE) model and implementation of best management practices (FEIS, Appendix B). Best Management Practices (BMP) were developed to comply with Section 208 of the Clean Water Act. BMPs have been certified by the NCRWQCB and approved by the EPA as the most effective way of protecting water quality from effects stemming from non-point sources of pollution. These practices have been applied to Klamath National Forest activities and have been found effective in protecting water quality. This project is consistent with the California Porter Cologne Water Quality Act and the North Coast Regional Water Quality Control Board (NCRWQCB) Basin Plan. This project will be grandfathered into the 2010 NCRWQCB Waste Discharge Waiver (RWB Order No. R1-2010-0029, the Waiver) but operate under the criteria and conditions of the 2004 NCRWQCB Timber Waiver (RWB Order R1-2004-0015). Following this decision, a notice of intent will be submitted to NCRWQCB for this project. The Forest Service will work with NCRWQCB to secure the appropriate permits(s) for this project. The FEIS stated that Cade, O'Neil, and Caroline watersheds are over threshold for the CWE models and that monitoring may be required to meet the terms of the Waiver. Since the FEIS was completed and distributed, the Klamath National Forest Sediment and Temperature Monitoring Plan has been approved by the NCRWQCB and meets all of the Forest Service monitoring requirements for this project. Cade, O'Neil, and Caroline watersheds are too small to produce meaningful survey results. Stream shading will be maintained in the Riparian Reserves by design features that include a minimum of a 100-foot no-cut buffer on both sides of perennial and intermittent streams, variable density thinning and thinning from below that maintain adequate canopy cover in the outer portion of the Riparian Reserves, and no-cut buffers up to 340 feet on low gradient, fish bearing streams.

Pursuant to Executive Order 11990, there will be no loss of wetlands from any of the actions associated with this project.

Executive Order 11988 requires that projects avoid floodplain impacts to the extent possible. This project is consistent with Executive Order 11988 since the project will not cause any significant new ground disturbance within floodplains or stream channels.

Pursuant to Section 106 of the National Historic Preservation Act, the Karuk Tribe was consulted on the Thom-Seider Project and they did not identify any areas of concern. The Karuk Tribe was contacted early in project planning and consulted at various phases of this project in accordance with the Region 5

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Programmatic Agreement and other laws and regulations (FEIS, sections 1.5 and 3.14.2). A records search, literature review, and archaeological survey were completed for the project and are documented in Archeological Survey Report # R2010050517310. Relevant archaeological sites have been identified and will be protected by applying standard resource protection measures in or adjacent to the area of potential effect. The selected alternative will not result in any negative impacts to cultural resource sites (FEIS, section 3.4.5). The literature review and archaeological surveys were designed to identify all reasonably locatable cultural resources. However, if any cultural resources or human remains are identified during implementation (ground disturbance) of the project that were not located as a result of the current surveys, the Heritage Resource Manager will be notified immediately.

Executive Order 13112 requires agency actions to prevent the spread of noxious weeds. This project is compliant with Executive Order 13112, as it requires equipment cleaning prior to entry on National Forest System Lands and use of certified weed-free seed and straw is required when used for restoration.

The Selected Alternative is compliant with the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* or it complies with at least one of the four exemptions provided for in the October 11, 2006, modified injunction in Northwest Ecosystem Alliance v. Rey, Case No. 04-844-MJP (W.D. Wash. Oct. 11, 2006). This project falls within two of the four exemptions listed in the October 11, 2006, modified injunction NEA v. Rey; specifically:

(a) Thinning projects in stand younger than 80 years old; and

(d) The portions of projects involving hazardous fuel treatments where prescribed fire is applied. Any portions of hazardous fuel treatment project involving commercial logging will remain subject to the survey and manage requirements except for thinning of stands younger than 80 years old under subparagraph (a) of this paragraph. (NEA v. Rey, C04-0844-P, Stipulation (Dkt. No. 109 at 2-3)).

Surveys for Survey and Manage species were completed in 2007 and 2008 for the Thom-Seider Project. Analysis of effects on Survey and Manage species was completed and included in the FEIS as “Klamath National Forest Sensitive Species” or as “other species of concern” and/or in the Survey and Manage Species Analysis (Burnett 2010) or the Happy Camp Survey and Manage Botany Memo (Rentz 2010).

Thorough analyses of federally listed species and consultation with the USDI Fish and Wildlife Service (FWS) was completed fulfilling section 7 of Endangered Species Act consultation requirements (19 U.S.C. 1536(c)). The FWS concurred with a determination that the project is not likely to adversely affect NSO and NSO Critical Habitat on September 1, 2009 (USDI Fish and Wildlife Service 2009). No nesting or roosting habitat within the LSR or NSO cores would be removed or downgraded. None of the existing dispersal habitat within the project area would be removed. The majority of foraging habitat to be removed occurs in the outer portion of estimated NSO home ranges, and no NSO home range would be taken below 1,340 acres as a result of the selected alternative. Effects to NSO prey species are expected to be minimal or of short duration. Impacts to the primary constituent elements of critical habitat are expected to be minimal. The project is consistent with the 2008 and 1992 NSO Recovery Plan.

Thorough analyses of federally listed species and consultation with the National Marine Fisheries Service (NMFS) was completed fulfilling section 7 of Endangered Species Act consultation requirements (19 U.S.C. 1536(c)) for fisheries. The Forest Service received the Letter of Concurrence on from NMFS on March 17, 2011. The line officer responsible for this decision has considered the information in the Letter of Concurrence for the Thom-Seider project. NMFS concurred with the determination that the project may affect, but is not likely to adversely affect Southern Oregon and Northern California Coasts coho salmon or their designated critical habitat. With regards to Essential Fish Habitat (EFH), due to project design features and the use of BMPs, no additional Conservation Recommendations are required. Consultation would only need to be reinitiated with regards to EFH if the proposed action were to be substantially revised in a way that may adversely affect EFH. The selected alternative slightly reduces the acres of treatment as compared to the proposed action, thereby reducing any effects to EFH. Therefore, no changes are needed to the selected alternative.

The selected alternative for the Thom-Seider Project is compliant with the Wild and Scenic River Act (FEIS, section 3.13). The Klamath River is a component of the National Wild and Scenic River (WSR) System and was designated for its outstandingly remarkable anadromous fisheries value. The project treatments will have no effect on the free flowing conditions and no impact to beneficial uses of the Klamath River. The selected alternative is not likely to adversely affect anadromous fisheries and therefore will maintain the outstandingly remarkable value of the WSR (FEIS, section 3.13.3). All Forest Plan WSR Standard and Guidelines will be met for this project.

Administrative Review Opportunities

The HFRA directs the Forest Service to develop a special predecisional review process for authorized hazardous fuel reduction projects. The objection process (36 CFR part 218, subpart A) occurs after an environmental assessment or final environmental impact statement is completed and before a decision document is signed for an authorized hazardous fuel reduction project. The objection process was established for early participation and collaborative efforts, as well as resolution of concerns before a decision is made. The appeal process (36 CFR, part 215) is the administrative review process for projects other than those authorized by the HFRA that require an environmental assessment or final environmental impact statement and is used after a decision has been made. The appeal regulation was amended to say that projects under the HFRA are not subject to the 215 rule.

An objection for this project was submitted to the Forest by a coalition of environmental groups, KSWild, KFA, and EPIC. The objection was settled on January 13, 2010 and resulted in some minor modifications to the selected alternative as described in this ROD (ROD p. 2 and Appendix D). The HFRA established that a person may bring a civil action challenging an authorized hazardous fuel reduction project in a Federal district court, but only if the person has challenged the project by exhausting the administrative review process established by the Secretary of Agriculture. Section 106 of the HFRA establishes direction governing judicial review of lawsuits challenging hazardous fuel reduction projects authorized under the Act.

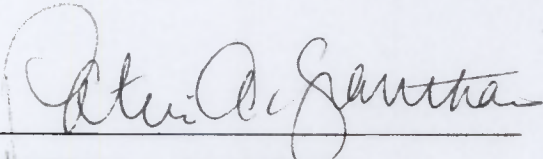
Implementation Date

Implementation of this project can begin immediately. My intention is to implement this project through service contracts, timber sale contracts, and/or stewardship contracts.

Project activities will be seasonally restricted, as described in Section 2.3.2 and 2.3.2.1 of the FEIS. Seasonal restrictions mainly apply to activities relating to NSO, northern goshawk, bald eagle, and their associated habitats.

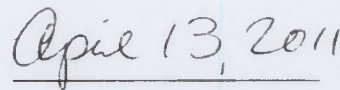
Contact

For additional information concerning this decision, please contact District Ranger Ken Harris or district silviculturist, Carol Sharp, Happy Camp Ranger District, Klamath National Forest, 63822 Hwy 96, Happy Camp, CA 96039-0377 or at (530) 493-2243 or (530) 493-1734, respectively.



PATRICIA A. GRANTHAM

Forest Supervisor



Date

Appendix B: Unit Acres and Yarding Systems

Table ROD-2. Key Treatment elements of the Selected Alternative

| Unit# | Yarding System | Acres | Unit# | Yarding System |
|-------|----------------|-------|-------|----------------|
| 9 | Tractor | 17 | 243 | Helicopter |
| 11 | Cable | 17 | 247 | Cable |
| 12 | Cable | 37 | 248 | Cable |
| 13 | Tractor | 13 | 254 | Cable |
| 14 | Cable | 2 | 257 | Helicopter |
| 16 | Cable | 31 | 276 | Helicopter |
| 17 | Cable | 7 | 279 | Cable |
| 18 | Helicopter | 14 | 280 | Cable |
| 20 | Tractor | 17 | 281 | Cable |
| 22 | Cable | 24 | 288 | Tractor |
| 23 | Cable | 12 | 303 | Helicopter |
| 28 | Cable | 7 | 304 | Cable |
| 29 | Cable | 9 | 305 | Cable |
| 30 | Cable | 10 | 307 | Cable |
| 31 | Helicopter | 15 | 309 | Tractor |
| 32 | Tractor | 18 | 404 | Cable |
| 33 | Tractor | 23 | 405 | Tractor |
| 34 | Tractor | 18 | 500 | Tractor |
| 40 | Cable | 15 | 501 | Tractor |
| 41 | Helicopter | 22 | 502 | Tractor |
| 42 | Tractor | 8 | 503 | Helicopter |
| 44 | Tractor | 21 | 504 | Cable |
| 45 | Cable | 13 | 511 | Tractor |
| 46 | Tractor | 37 | 512 | Tractor |
| 46a | Tractor | 10 | 513 | Tractor |
| 47 | Cable | 17 | 517 | Tractor |
| 48 | Cable | 8 | 518 | Tractor |
| 49 | Cable | 19 | 519 | Tractor |
| 57 | Tractor | 38 | 520 | Tractor |
| 59 | Tractor | 11 | 521 | Tractor |
| 59a | Tractor | 26 | 523 | Tractor |
| 63 | Tractor | 20 | 525 | Tractor |
| 78 | Helicopter | 9 | 530 | Tractor |
| 80 | Cable | 14 | 536 | Tractor |
| 84 | Cable | 9 | 543 | Tractor |
| 88 | Helicopter | 18 | 547 | Tractor |
| 89 | Tractor | 4 | 603 | Cable |
| 90 | Cable | 36 | 604 | Cable |
| 92 | Tractor | 10 | 605 | Helicopter |
| 95 | Tractor | 16 | 606 | Helicopter |
| 97 | Cable | 25 | 607 | Helicopter |
| 99 | Cable | 8 | 612 | Helicopter |
| 106 | Tractor | 10 | 613 | Helicopter |
| 160 | Helicopter | 13 | 614 | Tractor |
| 182 | Cable | 13 | 615 | Cable |
| 207 | Cable | 17 | 616 | Helicopter |
| 221 | Helicopter | 26 | 617 | Cable |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

Table ROD-3. Variable Density Thinning - Non-commercial

| Unit# | Acres | Unit# | Acres | Unit# | Acres |
|-------|-------|-------|-------|-------|-------|
| 9 | 7 | 47 | 2 | 279 | 5 |
| 11 | 4 | 49 | 4 | 281 | 0 |
| 12 | 0 | 57 | 2 | 285 | 50 |
| 13 | 14 | 62 | 30 | 303 | 8 |
| 14 | 4 | 79 | 62 | 306 | 21 |
| 17 | 7 | 80 | 0 | 404 | 1 |
| 20 | 2 | 84 | 0 | 500 | 0 |
| 22 | 13 | 90 | 4 | 502 | 0 |
| 23 | 4 | 92 | 0 | 503 | 0 |
| 29 | 3 | 98 | 32 | 601 | 2 |
| 30 | 13 | 99 | 2 | 602 | 4 |
| 31 | 0 | 106 | 1 | 603 | 5 |
| 34 | 1 | 160 | 0 | 605 | 1 |
| 40 | 2 | 182 | 13 | 606 | 4 |
| 42 | 0 | 221 | 2 | 607 | 0 |
| 44 | 1 | 243 | 3 | 608 | 2 |
| 45 | 5 | 247 | 2 | 609 | 19 |
| 46a | 3 | 257 | 5 | 613 | 1 |
| | | 277 | 75 | 614 | 2 |

Table ROD-4. Underburning

| Unit# | Acres | Unit# | Acres | Unit# | Acres |
|-------|-------|-------|-------|-------|-------|
| A1 | 35 | A25 | 1114 | A59 | 280 |
| A11 | 8 | A26 | 92 | A6 | 86 |
| A12 | 139 | A27 | 65 | A60 | 593 |
| A13 | 82 | A28 | 408 | A61 | 1244 |
| A14 | 42 | A29 | 410 | A62 | 1140 |
| A159 | 5 | A30 | 421 | A63 | 183 |
| A16 | 295 | A31 | 1406 | A64 | 612 |
| A17 | 65 | A32 | 128 | A65 | 242 |
| A18 | 175 | A36 | 6 | A66 | 530 |
| A186 | 547 | A38 | 106 | A67 | 546 |
| A19 | 104 | A39 | 649 | A68 | 1436 |
| A2 | 264 | A4 | 17 | A69 | 333 |
| A200 | 65 | A40 | 702 | A7 | 120 |
| A201 | 68 | A41 | 1026 | A70 | 126 |
| A202 | 333 | A5 | 38 | A71 | 419 |
| A203 | 296 | A53 | 201 | A72 | 77 |
| A204 | 118 | A54 | 172 | A73 | 143 |
| A205 | 454 | A55 | 408 | A76 | 45 |
| A21 | 293 | A56 | 430 | A8 | 81 |
| A22 | 1382 | A57 | 1090 | A9 | 78 |
| A23 | 484 | A58 | 215 | | |

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Table ROD-5. Other Treatments/Actives

| Description | | Quantity |
|---|---|-----------------|
| Understory Fuels Reduction (adjacent to Pvt. Lands) | | 6,142 Acres |
| Roadside Treatment | 2,721 Acres (150' buffer each side) or 77 Miles | |
| Temporary Roads | | 1.5 Miles |
| Existing Log Landings | | 208 landings |

Appendix C: Stand Treatment Table and Associated Design Features

Tables ROD-C-1, C-2, and C-3 lists the stand treatment with the stand specific design features identified for the selected alternative. See the FEIS pp30-36 for detailed prescription descriptions. Project design features developed to address overall project objectives and ensure Forest Plan compliance are listed in Table C-4.

| Table ROD-6 Commercially Thinned Stands | | | | |
|---|------------|-------------|-------|---|
| Unit No. | System | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
| 9 | Tractor | TA-UB | 17 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,6,7,11,12; WLDL12; WSW1; WWFS1 |
| 11 | Cable | TA-UB | 17 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11,12; WLDL1,6,7,12; WWFS1 |
| 12 | Cable | TA-UB | 37 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL1,6,7,12; WWFS1 |
| 13 | Tractor | TA-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,6,7,11,12; WLDL12; WSW1; WWFS1 |
| 14 | Cable | TA-UB | 2 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL12; WWFS1 |
| 16 | Cable | TA-UB | 31 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL1,6,12; WWFS1 |
| 17 | Cable | TA-UB | 7 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 18 | Helicopter | CL-HP/LS-UB | 14 | ARCH2; BOT3, 5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7; WLDL12; WSW1; WWFS1 |
| 20 | Tractor | TA-UB | 17 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11; WLDL12; WSW1; WWFS1 |
| 22 | Cable | TA-UB | 24 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 23 | Cable | TA-UB | 12 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 28 | Cable | TA-UB | 7 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL12; WWFS1 |
| 29 | Cable | TA-UB | 9 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11,12; WLDL10,12; WWFS1 |
| 30 | Cable | TA-UB | 10 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 31 | Helicopter | CL-HP-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7; WLDL12; WSW1; WWFS1 |
| 32 | Tractor | TA-UB | 18 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 33 | Tractor | TA-UB | 23 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 34 | Tractor | TA-UB | 18 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11; WLDL12; WSW1; WWFS1 |
| 40 | Cable | TA-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,11,12; WLDL12; WWFS1 |
| 41 | Helicopter | CL-HP-UB | 22 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,12; WLDL12; WSW1; WWFS1 |
| 42 | Tractor | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 44 | Tractor | TA-UB | 21 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11,12; WLDL12; WSW1; WWFS1 |

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| Table ROD-6 Commercially Thinned Stands | | | | |
|--|---------------|-----------------|--------------|---|
| Unit No. | System | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
| 45 | Cable | TA-HP | 13 | ARCH2; BOT3,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 46 | Tractor | TA-UB | 37 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,6,7,11; WLDL12; WSW1; WWFS1 |
| 46a | Tractor | TA-UB | 10 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11; WLDL1,6,12; WSW1; WWFS1 |
| 47 | Cable | TA-UB | 17 | ARCH2; BOT3,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,6,7,9,11; WLDL12; WWFS1 |
| 48 | Cable | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 49 | Cable | TA-UB | 19 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,6,7,9,11,12; WLDL12; WSW1; WWFS1 |
| 57 | Tractor | TA-UB | 38 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11,12; WLDL12; WSW1; WWFS1 |
| 59 | Tractor | TA-UB | 11 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 59a | Tractor | TA-UB | 26 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL1,6,12; WSW1; WWFS1 |
| 63 | Tractor | TA-UB | 20 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 78 | Helicopter | CL-HP-UB | 9 | ARCH2; BOT3, 5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7; WLDL12; WSW1; WWFS1 |
| 80 | Cable | TA-UB | 14 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 84 | Cable | TA-UB | 9 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL1,6,12; WWFS1 |
| 88 | Helicopter | CL-HP-UB | 18 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7; WLDL12; WSW1; WWFS1 |
| 89 | Tractor | TA-UB | 4 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 90 | Cable | TA-UB | 36 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL1,6,12; WWFS1 |
| 92 | Tractor | TA-UB | 10 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 95 | Tractor | TA-UB | 16 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 97 | Cable | TA-UB | 25 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11,12; WLDL12; WWFS1 |
| 99 | Cable | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11,12; WLDL12; WWFS1 |
| 106 | Tractor | TA-UB | 10 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,6,7,11,12; WLDL12; WSW1; WWFS1 |
| 160 | Helicopter | CL-HP-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS3,7,8; WLDL12; WSW1; WWFS1 |
| 182 | Cable | TA-HP | 13 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 207 | Cable | TA-UB | 17 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 221 | Helicopter | CL-HP-UB | 26 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,12; WLDL12; WSW1; WWFS1 |
| 243 | Helicopter | CL-HP-UB | 25 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11,12; WLDL12; WSW1; WWFS1 |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

| Table ROD-6 Commercially Thinned Stands | | | | |
|--|---------------|-----------------|--------------|---|
| Unit No. | System | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
| 247 | Cable | TA-UB | 9 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 248 | Cable | TA-UB | 5 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL12; WWFS1 |
| 254 | Cable | TA-UB | 20 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL11,12; WWFS1 |
| 257 | Helicopter | CL-HP-UB | 34 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11; WLDL11,12; WSW1; WWFS1 |
| 276 | Helicopter | CL-HP-UB | 17 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,8,12; WLDL12; WSW1; WWFS1 |
| 279 | Cable | TA-UB | 10 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,8,9,12; WLDL12; WWFS1 |
| 280 | Cable | TA-UB | 11 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 281 | Cable | TA-UB | 18 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,8,9,12; WLDL12; WWFS1 |
| 288 | Tractor | TA-UB | 12 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,4,7,12; WLDL12; WSW1; WWFS1 |
| 303 | Helicopter | CL-HP-UB | 35 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11,12; WLDL12; WSW1; WWFS1 |
| 304 | Cable | TA-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,6,7,9,12; WLDL12; WWFS1 |
| 305 | Cable | TA-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 307 | Cable | TA-UB | 12 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 309 | Tractor | TA-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 404 | Cable | TA-UB | 10 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,5,7,9,11; WLDL12; WWFS1 |
| 405 | Tractor | TA-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 500 | Tractor | TA-UB | 27 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 501 | Tractor | TA-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 502 | Tractor | TA-UB | 20 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11; WLDL12; WSW1; WWFS1 |
| 503 | Helicopter | CL-HP-UB | 58 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11; WLDL12; WSW1; WWFS1 |
| 504 | Cable | TA-UB | 34 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL12; WWFS1 |
| 511 | Tractor | TA-UB | 5 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 512 | Tractor | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11; WLDL12; WSW1; WWFS1 |
| 513 | Tractor | TA-UB | 3 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 517 | Tractor | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 518 | Tractor | TA-UB | 14 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 519 | Tractor | TA-UB | 9 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

| Table ROD-6 Commercially Thinned Stands | | | | |
|--|---------------|-----------------|--------------|--|
| Unit No. | System | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
| 520 | Tractor | TA-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 521 | Tractor | TA-UB | 19 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,5,7,11,12; WLDL12; WSW1; WWFS1 |
| 523 | Tractor | TA-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 525 | Tractor | TA-UB | 3 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 530 | Tractor | TA-UB | 25 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 536 | Tractor | TA-UB | 11 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,8,12; WLDL12; WSW1; WWFS1 |
| 543 | Tractor | TA-UB | 6 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 547 | Tractor | TA-UB | 19 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,12; WLDL12; WSW1; WWFS1 |
| 603 | Cable | TA-UB | 16 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9,12; WLDL12; WWFS1 |
| 604 | Cable | TA-UB | 16 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,9; WLDL12; WWFS1 |
| 605 | Helicopter | CL-HP-UB | 14 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11; WLDL12; WSW1; WWFS1 |
| 606 | Helicopter | CL-HP-UB | 18 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,5,7,11; WLDL12; WSW1; WWFS1 |
| 607 | Helicopter | CL-HP-UB | 35 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,8,12; WLDL12; WSW1; WWFS1 |
| 612 | Helicopter | CL-HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,12; WLDL12; WSW1; WWFS1 |
| 613 | Helicopter | CL-HP-UB | 15 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,8,12; WLDL12; WSW1; WWFS1 |
| 614 | Tractor | TA-UB | 6 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1-5; VISQ1; WATQ1; WATS2,3,7; WLDL12; WSW1; WWFS1 |
| 615 | Cable | TA-UB | 6 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,7,8,9,12; WLDL12; WWFS1 |
| 616 | Helicopter | CL-HP-UB | 26 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS3,7,12; WLDL12; WSW1; WWFS1 |
| 617 | Cable | TA-UB | 6 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL1,5; VISQ1; WATQ1; WATS1,3,6,7,9; WLDL12; WWFS1 |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

Table ROD-7 Non-Commercial Thin Units

| Unit | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
|------|----------|-------|---|
| 9 | HP-UB | 7 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 11 | HP-UB | 4 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL1,6,7,12; ; WWFS1 |
| 12 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL1,6,7,12; ; WWFS1 |
| 13 | HP-UB | 14 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; ; WWFS1 |
| 14 | HP-UB | 4 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; ; WWFS1 |
| 17 | HP-UB | 7 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; ; WWFS1 |
| 20 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL12; ; WWFS1 |
| 22 | HP-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; ; WWFS1 |
| 23 | HP-UB | 4 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 29 | HP-UB | 3 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL10,12; WWFS1 |
| 30 | HP-UB | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 31 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; ;WWFS1 |
| 34 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 40 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11,12; WLDL12; ; WWFS1 |
| 42 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3; WLDL12; ; WWFS1 |
| 44 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; ; WWFS1 |
| 45 | HP | 5 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3; WLDL12; ; WWFS1 |
| 46a | HP-UB | 3 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL1,6,12; ; WWFS1 |
| 47 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL12; ; WWFS1 |
| 49 | HP-UB | 4 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11,12; WLDL12; ; WWFS1 |
| 57 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 62 | HP-UB | 30 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 79 | HP-UB | 62 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL7,12; WWFS1 |
| 80 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 84 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL1,6,12; WWFS1 |
| 90 | HP-UB | 4 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,12; WLDL1,6,12; WWFS1 |
| 92 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3; WLDL12; WWFS1 |
| 98 | HP-UB | 32 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11,12; WLDL7,12; ;WWFS1 |
| 99 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11,12; WLDL12; ; WWFS1 |
| 106 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 160 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3; WLDL12; WWFS1 |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

Table ROD-7 Non-Commercial Thin Units

| Unit | Fuels RX | Acres | Applicable Project Design Features From Table ROD-10 |
|------|----------|-------|---|
| 182 | HP | 13 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 221 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL12; WWFS1 |
| 243 | HP-UB | 3 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 247 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 257 | HP-UB | 5 | ARCH2; BOT1,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL11,12; WWFS1 |
| 277 | HP-UB | 75 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL10,12; WWFS1 |
| 279 | HP-UB | 5 | ARCH2; BOT2,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL12; WWFS1 |
| 281 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL12; WWFS1 |
| 285 | HP-UB | 50 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,11; WLDL7,12; WWFS1 |
| 303 | HP-UB | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 306 | HP-UB | 21 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3; WLDL7,12; WWFS1 |
| 404 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 500 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; WATS3,12; WLDL12; WWFS1 |
| 502 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 503 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 601 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 602 | HP-UB | 4 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 603 | HP-UB | 5 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL12; ; WWFS1 |
| 605 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 606 | HP-UB | 4 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 607 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,12; WLDL12; WWFS1 |
| 608 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11; WLDL12; WWFS1 |
| 609 | HP-UB | 19 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |
| 613 | HP-UB | 1 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3,11,12; WLDL12; WWFS1 |
| 614 | HP-UB | 2 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; WATS3; WLDL12; WWFS1 |

TA = yard with tree tops attached

UB = underburn

HP = hand pile activity slash and burn piles

CL = cut to length

LS = lop and scatter slash

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

| Table ROD-8 Underburn Units | | |
|------------------------------------|--------------|--|
| Unit# | Acres | Applicable Project Design Features From Table C-4 |
| A1 | 35 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A11 | 8 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A12 | 139 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A13 | 82 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A14 | 42 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A159 | 5 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A16 | 295 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A17 | 65 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A18 | 175 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A186 | 547 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5,8; WWFS1 |
| A19 | 104 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A2 | 264 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A200 | 65 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A201 | 68 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A202 | 333 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A203 | 296 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A204 | 118 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A205 | 454 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A21 | 293 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A22 | 1382 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A23 | 484 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A25 | 1114 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A26 | 92 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A27 | 65 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A28 | 408 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A29 | 410 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A30 | 421 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A31 | 1406 | ARCH2; BOT2,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,4,5; WWFS1 |

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| Table ROD-8 Underburn Units | | |
|------------------------------------|--------------|--|
| Unit# | Acres | Applicable Project Design Features From Table C-4 |
| A32 | 128 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A36 | 6 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A38 | 106 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A39 | 649 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,4,5; WWFS1 |
| A4 | 17 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A40 | 702 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A41 | 1026 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,4,5; WWFS1 |
| A5 | 38 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A53 | 201 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A54 | 172 | ARCH2; BOT3,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A55 | 408 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A56 | 430 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,4,5; WWFS1 |
| A57 | 1090 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A58 | 215 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A59 | 280 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A6 | 86 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A60 | 593 | ARCH2; BOT2,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A61 | 1244 | ARCH2; BOT3,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A62 | 1140 | ARCH2; BOT3,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,4,5; WWFS1 |
| A63 | 183 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A64 | 612 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A65 | 242 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A66 | 530 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A67 | 546 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A68 | 1436 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A69 | 333 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,4,5; WWFS1 |
| A7 | 120 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A70 | 126 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A71 | 419 | ARCH2; BOT3,4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |

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| Table ROD-8 Underburn Units | | |
|------------------------------------|--------------|--|
| Unit# | Acres | Applicable Project Design Features From Table C-4 |
| A72 | 77 | ARCH2; BOT4,5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A73 | 143 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL5; VISQ1; WATQ1; WATS3,10,12; WLDL2,3,5; WWFS1 |
| A75 | 253 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A76 | 45 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A8 | 81 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |
| A9 | 78 | ARCH2; BOT5; FISH1; FVEG1-4; FAQ1-4; INVS1-4; SOIL5; VISQ1; WATQ1; WATS3,10; WLDL2,3,5; WWFS1 |

| Table ROD-9 Other Thinning Treatments | | |
|---|--------------|--|
| Treatment Type | Acres | Applicable Project Design Features From Table C-4 |
| Private Property Boundary Understory Thinning | 6,000 | ARCH1,2; BOT5; FISH1,2; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,8,9,10,11,12; WLDL1-12; WSW1; WWFS1 |
| Roadside Fuels Treatment | 2,700 | ARCH2; BOT5; FISH1,2; FVEG1-4; FAQ1-4; INVS1-4; RAQ1; SOIL1-5; VISQ1; WATQ1; WATS2,3,7,8,9,10,11,12; WLDL1-12; WSW1; WWFS1 |

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| Table ROD-10 Design Features and Land Base | | | |
|--|---|--|--|
| Resource Area | Design Feature | Land Base | Purpose |
| Archaeology (ARCH1) | Review understory thinning around private properties to determine measures needed for heritage resources when landowners request permit. | Understory thinning around private property | To protect heritage resources |
| Archaeology (ARCH2) | Avoid sites found in inventory. | All types of work | To protect heritage resources |
| Botanical Species of Interest (BOT1) | Protect all Klamath Mountain buckwheat (<i>Eriogonum hirtellum</i>) (ERHI7) individuals and habitat; buffer if necessary to keep equipment off plants and habitat. No prescribed burning or fireline construction in occurrences. | Non-commercial thin unit 257, underburns A31 and A40 | Avoid impacts to Sensitive Species |
| Botanical Species of Interest (BOT2) | Known host trees with Pacific fuzzwort (<i>Ptilidium californicum</i>) (PTCA5) would be retained. Maintain 50-60% canopy closure. If canopy closure cannot be maintained, avoid disturbing a portion of the population in the units. Avoid populations near new temp roads and landing sites. Hand-pull heavier slash in occurrence prior to burning. | Non-commercial thin unit 279, underburns A31 and A60 | Avoid impacts to Sensitive Species |
| Botanical Species of Interest (BOT3) | Clustered lady's slipper orchid (<i>Cypripedium fasciculatum</i>) (CYFA-5): Maintain 50-60% canopy closure. If canopy closure cannot be maintained, avoid disturbance through a portion of the population in the units. Avoid populations near new temp roads and landing sites. Only allow low-intensity prescribed burn through occurrence. | CT units 14, 45, 47, 78, 84, 182, 504 and adjacent landings and roads; NCT units 14, 62, 602, underburns A23, A39, A40 A54, A61, A62, A71 A202 | Avoid impacts to Sensitive Species |
| Botanical Species of Interest (BOT4) | Mountain lady's slipper orchid (<i>Cypripedium montanum</i>) (CYMO2): Maintain 50-60% canopy closure. If canopy closure cannot be maintained, avoid disturbance through a portion of the population in the units. Avoid populations near new temp roads and landing sites. Only allow low-intensity broadcast prescribed burn through occurrence. | CT units 11, 45 46, 47, 49, 92 95, 97, 500, 603 and adjacent landings and roads; NCT unit 49, underburns A30 A55, A56, A60, A61, A62, A71, A72, A203 | Avoid impacts to Sensitive Species |
| Botanical Species of Interest (BOT5) | Follow species-specific mitigations for additional Sensitive/ Survey and Manage plant occurrences located during implementation. | All types of work | Identify and mitigate impacts to botanical species of local interest |

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| Botanical Species of Interest (BOT6) | Burning within Special Interest Areas (SIA - MA 7) would be accomplished as separate units from general forest ecosystems, Fuels would hand pulled away from existing foxtail pine and Seiad Baker cypress trees. No mechanical pre-treatments or pile construction would occur within 100 feet of these species. Burns within SIAs would be low intensity and planned in conjunction with appropriate specialists. | Lake Mountain and Seiad Baker Cypress SIAs | Follow Special Interest Area Management Direction |
| Fisheries (FISH1) | No commercial thinning within 100 feet of any perennial or intermittent stream; no commercial thinning within 340 feet of low-gradient, fish bearing habitat. ¹ Non-commercial thinning in these areas would follow the 2001 PCT BO (NMFS 2001). | Commercial Thinning | Maintain riparian function, avoid adverse effects to fish |
| Fisheries (FISH2) | Follow terms and conditions in 2001 PCT BO | All non-commercial activities within Riparian Reserves | Maintain riparian function, avoid adverse effects to fish |
| Forest Vegetation (FVEG1) | General species preference for thinning trees would be: sugar pine, ponderosa pine, incense cedar, Douglas-fir, large black oak, Shasta red fir, white fir, pacific madrone, and live oak in descending order of preference to retain. This order of preference would be modified for individual stands to take into account management objectives such as species diversity, site and stand-specific factors; individual stand/unit prescriptions would supersede this order. | All variable density thinning and understory thinning | Retain appropriate species composition |
| Forest Vegetation (FVEG2) | Units proposed for commercial thinning may have also have a portion of the non-commercial-sized trees and brush thinned as necessary to meet stocking and fuels reduction objectives. | Commercial Thinning Units | Reduce understory density and ladder fuels |
| Forest Vegetation (FVEG3) | Units proposed for commercial thinning would have the stocking reduced to a level where it will remain at or below the maximum desired density for a period of at least 20 years without additional treatments. ² | Commercial Thinning Units | Maintain healthier stand densities over time |
| Forest Vegetation (FVEG4) | Thinning prescriptions would be designed to maintain or improve the health and vigor to the stand. This will include targeting diseased trees (e.g. dwarf mistletoe, heart and butt rots, etc) for removal while meeting other resource objectives. | All variable density thinning and understory thinning areas | Maintain and restore stand health and vigor |
| Fuels and Air Quality (FAQ1) | All burning will be done under an approved Burn Plan that specifies a burn prescription for each area. These prescriptions will account for fuel loading, fuel moisture, soil moisture, slope, aspect, etc., and will result in the desired quantity of fuel consumed for each prescribed burn. A fuel management specialist, who may utilize recommendations from a soil or earth scientist, will prepare prescriptions. Landing and hand piles will burn under controlled settings to contain fire spread. Underburning will occur under prescription, occurring in conditions that allow safe burning. Fire crews, equipped to control fire spread, will monitor underburning. Fire prescriptions would be reviewed by an IDT and approved by a line officer. | Fuels Treatments | To ensure burning results are within acceptable tolerances. |

¹ With one exception: commercial thinning may occur closer than 100 feet from a stream within 3 relatively flat, previously logged acres. See Appendix A for site specific descriptions.

² Thinning Prescriptions in some LSR stands do not meet this design feature because of other design features such as 20 inch dbh thinning and retention of 60 percent canopy cover for spotted owl habitat.

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| Fuels and Air Quality (FAQ2) | Smoke management plans will be submitted to the Siskiyou County Air Pollution Control District for each burn plan. Burning will occur during favorable weather conditions when smoke is transported away from sensitive locations. | Fuels Treatments | To minimize smoke in sensitive locations |
| Fuels and Air Quality (FAQ3) | Burning would occur at high fuel and duff moisture levels, which limits the burning of large stumps and coarse wood and maximizes consumption of smaller-sized fuel. Spot weather forecasts would be used to ensure favorable "within prescription" weather conditions for the burn and for smoke transport. | Fuels Treatments | To meet burn objectives and minimize smoke transport. |
| Fuels and Air Quality (FAQ4) | The District Fuel/Fire department helped determined acceptable levels of slash to retain on the site following harvest activities and also to identify areas and methods to remove standing slash of a sub-merchantable size, that otherwise would create an unacceptable fire risk. | Fuels Treatments | To ensure acceptable fuel levels in treated areas. |
| Invasive Species (INVS1) | Ensure equipment coming to and from the project is weed free: Include C Provision C6.36 Equipment Cleaning, (5/01), in the contract whenever heavy equipment is used to treat fuels, and in the timber sale contract. | All types of work | Reduce spread of invasive plants. |
| Invasive Species (INVS2) | Don't park vehicles or stage equipment in areas where weed populations are known to occur. Avoid disturbing specific populations (unit specific information in Appendix A, this information would be mapped and provided to all implementation staff and contractors). | All types of work | Reduce spread of invasive plants. |
| Invasive Species (INVS3) | Wherever seed, straw mulches or gravel is used to restore or maintain areas within the project area, certified weed free seeds straw, mulches, and/or gravel should be specified in any contract. | All types of work | Reduce spread of invasive plants. |
| Invasive Species (INVS4) | Follow species-specific mitigations for additional non-native plant occurrences located during implementation | All types of work | Identify and reduce sources of invasive plant spread. |
| Rock and Air Quality (RAQ1) | <p>Some units and roads in the area are underlain by ultramafic rock which can potentially contain asbestos. Approximately 6 miles of haul road cross serpentine soils. Timber haulers would be informed of these areas. The Siskiyou County Air Quality Management District would be notified in writing at least fourteen days (14) before the beginning of the activity or in accordance with a procedure approved by the district. The following dust control measures would be implemented during temporary road construction, rehabilitation, or maintenance activity on roads that cross serpentine soils:</p> <ol style="list-style-type: none"> 1. Unpaved areas, storage areas, or disturbed areas would be kept adequately wetted, treated with a chemical dust suppressant, or covered with a material that contains less than 0.25% asbestos. 2. The speed of any vehicles and equipment would be 15 miles per hour or less if dust is produced at higher speeds. 3. Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public. <p>Additional mitigation measures may be necessary to protect workers on site from airborne asbestos fibers, such as respirators, if dust is visible.</p> | Use of Roads | To reduce potential impact of asbestos |

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| Soils (SOIL1) | No more that 15% of a harvest unit to be disturbed by primary tractor skid trails, cable yarding corridors and landings. At least 85% of each commercial thinning unit designed to meet the Regional soil quality thresholds for total porosity, soil displacement, soil organic matter, soil hydrologic function, erosion and soil buffering capacity. | Commercial thinning | To minimize soil disturbance and maintain soil productivity |
| Soils (SOIL2) | Tractor equipment would not be used to yard slopes steeper than 35%, except where endlining is possible from equipment that remains on gentler slopes or roads. New skid trails would be limited to slopes less than 35% except where necessary to cross short steeper sections that connect flatter benches. | Tractor logging units | To minimize soil disturbance and maintain soil productivity |
| Soils (SOIL3) | Skid trails may need to be subsoiled, especially in units 13, 502, 513, 523 and 536. A soils specialist would visit these (and other tractor units as needed) to determine whether subsoiling is necessary to restore natural drainage and reduce detrimental soil conditions. | Specific Tractor logging units | To maintain soil productivity |
| Soils (SOIL4) | Skid trails from ground based equipment and cable corridors would be water barred as appropriate. | Tractor logging units | Minimize soil erosion |
| Soils (SOIL5) | At least 50% cover, as fine organic matter (<3 inch material), would be retained in all units. Soil cover would range from 50-80% depending on slope steepness and fuel reduction treatments. | All activities | Minimize soil erosion and maintain soil productivity |
| Visual Quality (VISQ1) | Minimize extent and visibility of disturbance from skid trails, landings, and yarding corridors. | Commercial Thinning | Meet VQO's |
| Water Quality (WATQ1) | Wet weather haul and equipment operation standards would be used to guide normal operating period activities as well as activities outside the normal operating period. If a contractor chooses to operate outside the normal operating period (April 15 – October 15) and the Forest Service agrees, a project-specific wet weather operations plan would be developed. It would then be implemented prior to the end of the normal operating period. This plan would designate appropriate road winterization measures by road segment to prevent loss of material from the road prism and also preclude borax application during heavy rainfall. | Commercial Thinning | To minimize the risk of non-point pollution. |
| Watershed (WATS1) | Cable units will have one-end suspension over the majority of the yarding corridor. | Cable logging units | Minimize watershed disturbance |
| Watershed (WATS2) | Prevent road runoff from draining onto skid trails. | Tractor logging units | Minimize runoff concentrating on skid trails |
| Watershed (WATS3) | Follow BMPs (see FEIS, Appendix 2, pp.303-318). | All activities | Protect water quality |
| Watershed (WATS4) | Tractor skid trails would receive review by an earth scientist prior to locating or rehabilitating. | Unit 288 | Minimize potential for CWE in O'Neill Creek Watershed |
| Watershed (WATS5) | No new temporary roads would be constructed in Riparian Reserves. | New Temporary Roads | To minimize disturbance from new roads |

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| Watershed (WATS6) | Following use, temporary roads would be decommissioned, fills removed from draws, and natural runoff patterns re-established (out-sloping, dips, etc.). Existing temporary roads used for the project would be rehabilitated by removing berms and dispersing surface runoff. | New Temporary Roads | To mitigate disturbance from new roads |
| Watershed (WATS7) | Existing roads and landings would be used to the extent possible. Site-specific measures would be used to provide increased stability of cuts and fills in landing and temporary road construction. Landings would be rehabilitated (storm-proofed and re-vegetated) after use. | Commercial Thinning | To minimize disturbance from new roads and landings |
| Watershed (WATS8) | Landing areas outside of existing roadbeds will be rehabilitated for proper drainage of runoff, improved infiltration, and effective soil cover. Following use, individual landings will be assessed by an engineer and/or earth scientist who will prescribe the most effective means of accomplishing these objectives. This can include shaping the slope to drain, sub-soiling to 18" to break up compaction, and mulching/re-vegetating to provide short- and long-term cover. | Commercial Thinning, especially new landings in O'Neill Creek watershed. | Minimize potential for erosion and sediment delivery to streams. |
| Watershed (WATS9) | Yarding corridors (skid trails, cable corridors) would generally not cross creeks. | Commercial Thinning | To maintain stream integrity |
| Watershed (WATS10) | Underburn prescriptions will be designed to result in low severity burns in all Riparian Reserves. During underburning, fire will generally be backed down into Riparian Reserves, and ignition will usually not occur there. However, there may be exceptions where ignition inside the Riparian Reserve may actually allow for lower severity fire in those areas. Specific problem spots, such as high concentrations of fuel located on unstable areas (particularly granitic areas), will be field reviewed by fuels and earth science personnel during development of the burn plan and appropriate mitigations developed. The potential for high severity fire can be mitigated by modifying the ignition pattern, or hand piling of slash accumulations on unstable areas prior to ignition. No more than 440 acres would be under-burned in Negro Creek in a 3 year period. | Fuels Treatments | To minimize adverse effects from a severe burn |
| Watershed (WATS11) | Trees larger than prescription size that are felled within Riparian Reserves for operational or safety reasons would be retained on site unless to do so would present an operational, safety, or fuels hazard. | Riparian Reserves | Maintain habitat provided by existing larger trees. |
| Watershed (WATS12) | Trees larger than 20 inches diameter would not be thinned as part of the prescription. An average of sixty percent canopy cover would be maintained where it exists across each thinning unit. Incidental trees greater than 20 inches that are felled along temporary roads and landings would be sold as timber. Incidental large trees felled for safety or operations within units (including along yarding corridors) would be left in place to contribute to the down wood, unless to do so would present an operational, safety, or fuels hazard. | All activities in LSR and within 0.5 miles of spotted owl nests. | Maintain habitat provided by existing larger trees. |
| Wildlife (WLDL1) | Suitable owl habitat would be maintained within northern spotted owl core areas. Thinning prescriptions in suitable habitat would maintain 60 percent canopy cover as necessary. | All activities within NSO core area | To meet habitat guidelines for northern spotted owl core areas. |

Record of Decision for Thom-Seider Vegetation Management and Fuels Reduction Project

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| Wildlife (WLDL2) | A seasonal restriction of February 1 st to September 15 th would apply to all activities that modify habitat or create smoke (including activities that degrade or are beneficial) within 0.25 mile of a NSO activity center or un-surveyed suitable habitat. This same restriction also applies to activities that remove or downgrade suitable habitat within 0.5 mile of an activity center or unsurveyed suitable habitat. If protocol surveys indicate that historic activity and/or suitable habitat are not occupied by breeding NSO's, seasonal restrictions may be waived. | All activities that modify habitat near nest sites. | To meet habitat guidelines for northern spotted owl core areas. |
| Wildlife (WLDL3) | Activities that generate noise above the ambient level will have a limited operating period from July 9th to January 31st for disturbance and September 1st to January 31 for operation within 0.25 mile of an occupied activity center and unsurveyed suitable nesting/roosting habitat. | All activities that generate noise | To avoid adverse effects to spotted owls. |
| Wildlife (WLDL4) | No more than 50 percent of the suitable habitat within an occupied NSO core area, and no more than 50 percent of the suitable habitat within an occupied NSO home range would be treated (thinned and/or underburned) annually. | All activities within occupied core areas and home ranges. | To avoid adverse effects to spotted owl habitat. |
| Wildlife (WLDL5) | Manage smoke in occupied habitat to dissipate within 24 hours. If heavy or concentrated smoke begins to inundate occupied nesting/roosting habitat or occupied activity centers late in the afternoon, ignition should be discontinued. | Activities in occupied habitat. | To avoid adverse effects to spotted owl habitat. |
| Wildlife (WLDL6) | Protocol surveys for northern spotted owls would be kept current to 1992 protocol for activities within 0.25 mile of nests. A three visit, year of action survey, covering all nesting/roosting habitat and/or historical activity centers within 0.25 miles of the action, may be substituted for the 1992 protocol surveys. | Thinning in non-suitable northern spotted owl habitat and underburns | To avoid adverse effects to spotted owl habitat. |
| Wildlife (WLDL7) | Limited operating period will be implemented September 1st to February 28th on all actions within 0.5 miles of known active goshawk nest sites. Restrict habitat-modifying activities between March 1 st and August 31 st within Primary Nest Zone (0.5 mile radius). Restrict loud and/or continuous noise within 0.25 mile of active nest sites during the same period. Normal levels of vehicle traffic on existing roads may be excluded in cases where goshawks appear to be habituated to such activities. | Habitat disturbing and noise producing activities near goshawk nests. | To avoid adverse effects to nesting goshawks. |
| Wildlife (WLDL8) | Limited operating period from September 1 st to December 31 st of each year, unless monitoring of the bald eagle site indicates that the eagles are not nesting or have failed. If nesting does occur or the nest has failed, burning could be implemented in the spring of that year. | Caroline Creek Bald Eagle Management Area | To avoid adverse effects to bald eagle. |
| Wildlife (WLDL9) | Female fisher use den sites that consist of cavities or structures such as thick mistletoe brooms. Denning habitat would be identified and thinning would be avoided for an acre surrounding identified habitats. Riparian areas or other adjacent areas that will not be commercially thinned can be used to meet this design feature. | Commercial thinning units containing fisher den sites | To protect fisher den sites, while maintaining conditions supporting future habitat development. |
| Wildlife (WLDL10) | Units to be mechanically treated were surveyed for talus habitat, which was mapped, and then surveyed for salamanders in 2007 and 2008. Siskiyou Mountains/Scott Bar salamanders were found in Units 29 and 277. The talus areas in units 29 and 277 will have a one site tree to harvest buffer. | Talus areas in Units 29 and 277 | To protect Siskiyou Mountains salamander habitat |

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| Wildlife (WLDL11) | Suitable habitat was identified for the Tehama chaparral in the project area and was surveyed in 2007 and 2008, Tehama chaparral was found in Units 254 and 257 during the surveys. Occupied sites in Units 254 and 257 would be protected by a 'one site-tree no cut buffer'. | Talus areas in Units 254 and 257 | To protect Tehama chaparral habitat. |
| Wildlife (WLDL12) | Selected large old conifers and hardwoods would be maintained through removal of competing vegetation within 25 to 35 feet around selected large trees, old hardwoods, and groups of hardwoods. | Variable density thinning units | To maintain older larger trees and hardwoods in stands. |
| Wildlife (WLDL13) | No landings would be constructed within 0.25 mile of an active northern spotted owl nest site. A wildlife biologist would review landing locations if not on the current map. | All landings | To avoid adverse effects to northern spotted owls. |
| Wildlife Soils Watershed (WSW1) | Protect existing CWD by having ground-based equipment avoid the larger diameter logs as much as practical. | All activities | Maintain wildlife habitat, soil productivity, and watershed function. |
| Wildlife, Watershed, and Fish Habitat (WWFS1) | Snags felled on roads or landings would be removed and sold as timber if merchantable. Snags would otherwise be retained except where they are safety hazards. Any snags felled for safety or operational reasons will be left in place, unless to do so would present a safety, operations, or fuels hazard. | All activities | Maintain existing wildlife habitat and future coarse woody debris |

Appendix D: Additional Documentation Prepared After Publication of the Thom-Seider FEIS in October 2009 and Considered for the ROD

The Thom-Seider EIS was prepared under the authority of the HFRA. The HFRA established a predecisional administrative review process (Objection Process) that begins after the completion of the FEIS. The Thom-Seider FEIS was completed and published in October of 2009. Objections received for the Thom-Seider Project (ROD, p 2) were settled in January of 2010. In February of 2010, some additional heritage surveys were determined to be necessary before the ROD was signed and have since been completed. Consultation with National Marine Fisheries Service (NMFS) also continued after the FEIS was released and a Letter of Concurrence was received by the Klamath National Forest (KNF) in March 17, 2011. Since the time that the FEIS was published and this ROD was issued, some additional documents have been prepared in response to changes in policy, laws, or to supplement information. Summaries of the changes, documents, or processes are provided below.

Objection Process and Resolution

The Thom-Seider FEIS was published in October of 2009. An objection was filed on November 16, 2009 by the Klamath Siskiyou Wildland Center (KSWild) et al that covered four main points. The KSWild issues and proposed solutions included: (1) maintain habitat values in four specific units (23, 47, 88, 89) considered to contain late-successional/old growth habitat (LS/OG) that were analyzed to be thinned below 60 percent canopy closure; (2) underburn rather than commercially thin all the helicopter units; (3) provide assurances that the prescribed underburns and non-commercial thinning portions of the project will be implemented along with the commercial thinning; and (4) address the road density in the Thom-Seider project area, Subpart A of the Travel Rule and decommissioning. On November 18, 2009 KFA as part of the same objection, added three objection points that included [renumbered for clarity]: (5) reiteration of the protection of NSO habitat in three of the units identified in objection point 1 from the first objection letter; (6) a request that unit 40 be changed to hand thinning or underburning due to the road maintenance required to access the unit; and (7) change units 57 and 603 to hand thinning or underburning because they are late-successional “maintenance” treatments rather than stand development treatments. The American Forest Resource Council (AFRC) contacted the KNF in November of 2009 and verified their status as a collaborator under HFRA objection process. On December 15, 2009, AFRC submitted comments in response the objections raised by KSWild et al. The KNF considered those comments for resolution of the issues.

An objection resolution meeting was held on December 15, 2009. Objection points 1 and 5 were largely resolved by further review of the units and because the project design features resulted in thinning that maintained the habitat in units that contained NSO habitat. Objection point 3 was resolved by providing KSWild et al. a list of priorities for underburning and noncommercial treatments; approximately 300 acres of non-commercial thinning originally in the Thom-Seider project has been completed since the FEIS was published under a separate Decision Memo. However objection points 2, 4, 6, and 7 were not completely resolved from this meeting.

On December 17, 2009 KSWild et al. sent a document providing a list of specific concerns for seven of the helicopter units as agreed to at the resolution meeting. They also stated continuing concern over units 57 and 603 in the LSR and additional concerns over two units (22 and 23) in the WSR corridor. The KNF responded to the continuing concerns in January of 2010.

In the January response to objection point 2, the KNF discussed how each of the seven helicopter units identified by KSWild would help meet the project purpose and need. The KNF agreed to drop commercial thinning in helicopter units 36 and 37 because they were isolated units within identified underburns. Mitigation measures that had been applied to units 22 and 23 during analysis to be consistent with the WSR System management guidelines were discussed in the response. These measures included reducing the size of units, no thinning within 100 feet of stream channels, and prescriptions that resulted in a light thinning. With these measures included, the two units will meet Retention Visual Quality and the project as a whole will not likely affect the outstandingly remarkable value (fisheries) or effect the free flowing condition of the Klamath River in compliance with the Wild and Scenic River Act. These units remained in the selected alternative.

The KNF responded to objection point 7 and with further discussion with KSWild et al, units 57 and 603 remained in the selected alternative. Unit 57 is considered a high priority to thin by the District Wildlife Biologist because it is a relatively young, even-aged stand and stand vigor is diminishing due to the high density. Unit 603 also contains areas of dense even-aged trees where thinning will help develop habitat characteristics and maintain older trees in the stands.

In response to objection point 6, the KNF responded that unit 40 had patches of dense, relatively young even-aged trees and the stand will benefit from commercial thinning and fuels treatment. Although the 46N83Y road is not drivable all the way to unit 40 at this time, it is a maintenance level 2 road and would require minimal work to reopen. The unstable areas referenced in the objection are out past unit 40 in a section of road that will not be used for this project. Unit 40 remained in the selected alternative.

On January 13, 2010, the KNF and KSWild discussed the objection again and reached a final resolution. On January 29, 2010, the KNF sent the formal correspondence to KSWild et al. documenting the agreement for the resolution. The following agreements were made. In response to objection point 4 (listed as agreement 1 in the resolution letter), the KNF will convene a field meeting with the district hydrologist, the district ranger and the HFRA participants (objectors) to review the need for decommissioning and/or storm-proofing of roads in the project area. The KNF will review gathered information within context of KNF priorities and then may proceed with subsequent analysis under the National Environmental Policy Act (NEPA) for any consequent road decommissioning and/or storm-proofing as needed. In response to objection point 2 (listed as agreement 2 in the resolution letter) there will be no commercial thinning in helicopter units 37, 38, and 277. Units 37 and 38 will be converted to a prescription of underburning only and the prescription for unit 277 will be changed to non-commercial thinning and underburning. If after treatment, the stand condition is not improved to an acceptable level as determined by the KNF, then another analysis and NEPA decision could be prepared that would cover treatment of the commercial component within these units.

Environmental Justice

An Environmental Justice analysis has been prepared. Executive Order 12898 relating to environmental justice requires an assessment of whether minorities or low-income populations will be disproportionately affected by proposed actions. Proposed actions were reviewed and there will be no adverse effects on human health or the environment that will result in significant, disproportionate effects on minorities or low income populations. Since there are no amendments to the Forest Plan associated with the selected alternative, no further civil rights impact analysis is required (FSM 1730 and FSH 1709.11).

Regional Office Review of Activities Proposed in the Inventoried Roadless Areas

For the Thom-Seider Project, consultation with the State of California occurred consistent with the Regional Forester's letter of November 28, 2007, which directs that the 2001 Roadless Rule be applied to projects that propose cutting and removal of trees (including thinning). On May 28, 2009, the Secretary of Agriculture issued a Memorandum (1042-154) stating that his office has the authority to approve or disapprove road construction or reconstruction and the cutting, sale, or removal of timber in those areas identified in the set of inventoried roadless area maps contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, dated November 2000. The Thom-Seider project was submitted to the Secretary's Office for review in July 2009 (FEIS, page 6-7) before the Thom-Seider FEIS was published. The Regional Office completed their review on July 16, 2010 and found the Thom-Seider Project consistent with the 2001 Roadless Rule.

Additional Archeological Surveys

During preparation of the DEIS and the FEIS, archeology surveys were conducted and 22 historic properties related to mining or other historic uses were relocated and examined (FEIS, section 3.14.3). The finding was that alternative 2 will not directly affect any heritage resources due to project design features that avoid or protect sites. After the FEIS was published, a new survey strategy was developed by the Klamath Heritage Program Manager in consultation with the State Historic Preservation Office. In order to ensure section 106 compliance, an additional 2,263 acres were surveyed in the summer of 2010, 34 known sites were recorded, and four new sites were identified. Site specific information and site protection measures are provided in the Archaeological Survey Report 2010-05-05-1876-0 on file at the Happy Camp/Oak Knoll Ranger District and at the Supervisor's Office in Yreka, CA. The environmental consequences for cultural resources for the Thom-Seider Project did not change from the original finding and the selected alternative will not directly affect cultural resources.

Survey and Manage Species

An analysis and report for Survey and Manage (S&M) species for the Thom-Seider Project was completed on December 23, 2010 by Tim Burnett, District Wildlife Biologist. The document is available in the project record as the Survey and Manage Species Analysis, Thom-Seider EIS. Project specific surveys were completed in 2007 and 2008 for S&M species compliant with the 2001 *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffers, and Other Mitigation Measures Standards and Guidelines* (2001 ROD). Five S&M species were addressed in the FEIS (FEIS, section 3.10) as either sensitive species or other species of interest/concern. Two other S&M species, the Siskiyou sideband and the Klamath shoulderband, that were not address the FEIS, are addressed in the 2010 Thom-Seider S&M report. Neither of these species were located during project surveys and there will be no impacts from project activities. The Happy Camp Survey and Manage Botany Memo 2010 was prepared by Erin Rentz, District Botanist, addressing four S&M plant species. The Memo concluded that none of the four species assessed were within the range of the Thom-Seider Project.

Addendum to the [fisheries] Biological Assessment/Biological Evaluation (BA/BE) for the Thom-Seider Project

The addendum summarizes the Letter of Concurrence from National Marine Fisheries Service (NMFS) and discusses the determination for Essential Fish Habitat (EFH). The KNF received the Letter of Concurrence to complete informal Endangered Species Act (ESA) consultation and EFH consultation from NMFS on March 17, 2011. The NMFS acknowledged that due to project design and the use of BMP's, they do not have any Conservation Recommendations at this time for EFH and that the KNF would only need to reinitiate EFH consultation if the proposed action is substantially revised in a way that may adversely affect EFH. The selected alternative slightly reduced the acres of treatment compared to the proposed action (ROD, p. 2). Therefore, the Klamath National Forest does not need to do a preliminary response to NMFS and there will be no changes to the selected alternative. The line officer responsible for this decision has considered the information in the Letter of Concurrence for the Thom-Seider project.