Decision Record
for the
Twin Ranch Forest Management Project
EA #DOI-BLM-OR-M050-2010-0002-EA

Introduction

The Medford District Bureau of Land Management, Butte Falls Resource Area (BLM) recently completed the *Twin Ranch Forest Management Project Environmental Assessment* (EA) for forest management activities on 736 acres of matrix lands and 16 acres of riparian reserves. The BLM analyzed three alternative ways of meeting the project's identified Purpose and Need (EA, p. 4-6). A no-action alternative was also included.

The Twin Ranch Forest Management project is located on BLM-administered lands in the Big Butte Creek fifth field watershed in the following locations:

Township 34 South, Range 3 East, Sections 27 and 35;

Township 35 South, Range 3 East, Sections 1, 2, 3, 11, 12, and 17;
Willamette Meridian; Jackson County, Oregon.

Note: In the EA (p. 106), section 3.7.4.5, Effects of Alternative 4 on Fuels, Direct and Indirect Effects should read as follows:

Effects in commercial thinning units are expected to be the same as in Alternative 2.
Effects in selection harvest units are expected to be the same as in Alternative 3.

Decision

It is my decision to implement the actions proposed and analyzed under Alternative 4 in the *Twin Ranch Forest Management Project* EA. It is also my decision to defer treatment in the 16 acres proposed for riparian reserve thinning in order to address concerns raised by the public. These stands may be assessed for treatment at a later date.

My decision will implement actions in the locations described above. Forest management activities will include selection harvest, commercial thinning, and slash disposal activities such as hand piling and burning and biomass utilization. Road projects to support forest management activities are road renovation, road decommissioning, temporary spur road construction, and road realignment. Actions will include all Project Design Features (PDFs) described in the EA (p. 18-21). PDFs were developed using the Best Management Practices (BMPs) identified in the *Medford District Record of Decision and Resource Management Plan* (ROD/RMP, p. 151-175).

My Decision is to

1. Commercially thin 542 acres of matrix lands.
2. Selection harvest 66 acres of matrix lands.
3. Renovate 24.6 miles of road.

4. Decommission approximately 0.7 mile of road.
5. Construct 1.1 miles of temporary spur roads.
6. Realign 0.1 mile of road out of a riparian reserve.
7. Hand pile and burn 32 acres of activity slash.
8. Lop and scatter activity slash on 76 acres.
9. Remove biomass (whole tree yard) on 517 acres.

Decision Rationale

My decision is in compliance with the Medford District ROD/RMP, dated June 1995, and the Northwest Forest Plan, dated April 1994 (EA, p. 8-9). The proposed action complies with applicable laws, rules, regulations, standards, and guidelines. This action takes into consideration cumulative impacts of past, present, and future management activities in the Project Area on nearby private and Federal lands. All required Threatened and Endangered (T&E) species, Special Status Species (SSS), Survey and Manage (S&M) species, and cultural surveys were completed and mitigations were applied, where appropriate.

In preparing the EA, the BLM analyzed the impacts of the proposed action for the following issues: soil compaction-soil productivity, northern spotted owl habitat, economics, and forest health and vigor. The BLM determined the impacts will be within those analyzed in the *Medford District Proposed Resource Management Plan and Environmental Impact Statement* (PRMP/EIS) or were otherwise insignificant. Discussion of those impacts can be found in the EA (p. 30-128).

I have chosen Alternative 4 because it most completely meets the identified purpose of and need for the project by:

- Producing revenue for the Federal government and contributing 6.9 million board feet of timber toward the Butte Falls Resource Area's and Medford District's Allowable Sale Quantity (ASQ).
- Treating 608 acres of dense stands to make site resources available for remaining trees and redistribute growth potential to fewer, but larger, trees.
- Maintaining or enhancing forest health, stand structure, and function while avoiding removal of northern spotted owl habitat.
- Reducing potential sediment production by renovating 24.6 miles of roads, including surfacing 3.5 miles of inadequately surfaced roads.
- Reducing the risk of sediment delivery into streams by replacing 4 damaged culverts, installing 5 new culverts, realigning existing road out of a riparian reserve to more stable ground, and decommissioning 0.7 mile of existing roads.
- Providing road access to harvest units by constructing 1.1 miles of temporary roads located on stable locations and minimizing road locations in riparian reserves.

- Reducing potential risk of wildfire that may result from the slash produced during harvest treatments by requiring whole tree harvesting and biomass removal from 517 acres and fuels treatments (lop and scatter or hand pile and burn) on the remaining 108 acres.
- Maintaining existing habitat within the 1.2-mile provincial radius of known active northern spotted owl sites by avoiding treatments within these areas.
- Maintaining substantially all of the older and more structurally complex, multilayered conifer forests on approximately 330 acres within the Project Area.
- Designating skid trails at an average spacing of 150 feet and using existing trails in previously harvested units.

In making my decision, I considered the comments we received on the EA. The following concerns were weighed in my decision making and influenced my decision.

Miles of roads in the Project Area. Alternative 4, the selected alternative, will reduce the miles of permanent roads by 0.7 mile.

Economically viable sales. Construction of 1.1 miles of temporary roads will provide access to harvest units and allow more economical harvest methods.

Increase in early successional stands and decrease in late-successional stands. Harvest methods will not increase the amount of early successional stands. The current level of late-successional stands will not be reduced.

Northern spotted owl habitat. Actions in Alternative 4 will downgrade northern spotted owl nesting, roosting, and foraging habitat; however, no regeneration harvest will occur so no northern spotted owl habitat will be removed.

Use of watershed analysis recommendations. The BLM has implemented and continues to implement restoration projects that incorporate the recommendations of the Central Big Butte Watershed Analysis (WA). Since 2000, the BLM has completed the following aquatic restoration projects within the Central Big Butte watershed analysis unit, which contains the Twin Ranch Project Area:

- Road decommissioning ..... 9.5 miles
- Culvert upgrades ..... 3.3 miles (North Fork Big Butte Creek)
- Bottomless arch installation ..... 1 arch (North Fork Big Butte Creek)
- Large wood placement ..... 0.5 mile in fish-bearing streams
- Skid trail and landing decompaction and planting ..... 19 acres
- Fenced cattle exclosures on riparian areas ..... 18.7 acres on fish-bearing streams

Another 1.27 miles of natural surface roads along North Fork Big Butte Creek are under contract for decommissioning in 2010.

The Twin Ranch project interdisciplinary team considered the Central Big Butte WA recommendations when developing alternatives for the Twin Ranch Forest Management Project as follows:

- Reduce the miles of road in the riparian area (WA, p. 50)

  0.1 mile of road will be relocated out of a draw bottom and the abandoned route will be fully decommissioned.

- Reduce compaction and reduce sediment from contributing roads (WA, p. 51).

  To reduce compaction, 0.7 mile of BLM road #34-3E-35 will be fully decommissioned, ripped, seeded with native grasses, mulched, and planted to reestablished vegetation.

  To reduce sediment from roads, 24.6 miles of roads will be renovated before they are used for forest management activities. Renovation includes adding rock surfacing to 3.5 miles of inadequately surfaced road. Four damaged culverts will be replaced and five new culverts will be installed to reduce the risk of sediment delivery into streams.

  In addition, 114 miles of BLM or privately controlled roads within the Big Butte Creek Watershed recently received a combination of road renovation, surfacing, or maintenance for the timber sales resulting from the 2008 Butte Falls Blowdown Salvage project to reduce sediment. Of the 114 miles, 48 miles are within the Central Big Butte Creek watershed analysis unit.

- Minimize new road construction and rip skid trails to reduce compaction and increase filtration and reduce runoff (WA, p. 52).

  No new permanent roads will be constructed. Approximately 0.1 mile of road will be relocated out of a riparian reserve.

  To minimize ground disturbance, skid trails will be designated and existing skid trails will be used where feasible. Where new skid trails are needed to access unharvested areas, they will be spaced an average of 150 feet apart.

  Approximately 1.1 miles of temporary spur roads and associated landings will be constructed and decommissioned (including ripping) after use.

- Maintain a diversity of age/size classes throughout the landscape . . .. Early successional stands should not exceed present levels (WA, p. 55).

  Early successional stand levels will not be changed. Selection harvest will emphasize removal of poor vigor trees from across all diameter classes. Stand densities will be reduced and site resources will be made available for the remaining trees. Commercial thinning will control the stocking level and redistribute growth to fewer but larger trees.

Consultation and Coordination

The federally threatened northern spotted owl is the only T&E wildlife species in the Project Area. The BLM consulted with the US Fish and Wildlife Service (Service) on the impacts of this project on the northern spotted owl pursuant to Section 7(a)(2) of the Endangered Species Act (ESA). Formal consultation was completed and the Service concurred with the BLM's determination that the proposed action "may affect, is likely to adversely affect" the northern spotted owl or designated northern spotted owl critical habitat. The BLM received a Biological Opinion (BO) from the Service on July 19, 2010 (BO# 13420-2010-F-0107). The Service concluded that the action area is expected to continue to fulfill its role in the survival and recovery of the spotted owl because implementation of the proposed action will retain 99 percent

of the currently occupied owl nesting, roosting, foraging, and dispersal habitat in the action area (BO, p. 64).

The Twin Ranch Project Area is outside the ranges of the three Federal endangered plant species (*Lomatium cookii*, *Limnanthes floccosa* ssp. *grandiflora*, and *Fritillaria gentneri*) found in the Butte Falls Resource Area, no sites were discovered in the area during past surveys, and the units do not contain suitable habitat for these three T&E plants. The project botanist determined the Twin Ranch project would be a "no effect" ESA determination for T&E plants; therefore, consultation with the Service was not required.

The Project Area contains one T&E fish species: Southern Oregon/Northern California coho salmon. The BLM originally consulted with NOAA Fisheries on the road realignment, associated culvert installation, and adjacent timber harvest proposed on an intermittent non-fish-bearing stream in the Twin Ranch Forest Management Project through a biological assessment for the 2006 Bowen Arrow Forest Management Project. In January 2007, NOAA Fisheries issued a letter of concurrence (NMFS Number: 2007/06304) for the Bowen Arrow project, including the road realignment, culvert installation, and adjacent timber harvest in T35S, R3E, section 7. The road realignment project, culvert installation, and adjacent timber harvest will be implemented as originally designed and consulted on. These projects "may effect, are not likely to adversely affect" Southern Oregon/Northern California coho salmon and are consistent with the NOAA Fisheries letter of concurrence.

Given the absence of direct effects, low potential of sediment delivery, and no effect on water temperature, implementation of the remainder of this project would be a "no effect" ESA determination on Southern Oregon/Northern California coho salmon, coho critical habitat, and essential fish habitat.

The BLM mailed letters to The Cow Creek Band of Umpqua Tribe of Indians, Confederated Tribes of Siletz, and The Confederated Tribes of Grand Ronde notifying them of the Twin Ranch Forest Management project and scoping process for the EA.

Public Involvement

The Butte Falls Resource Area mailed a letter to a total of 45 adjacent landowners, businesses, organizations, tribes, government agencies, and other interested parties on January 13, 2010 to initiate public scoping for this project. Scoping recipients had either requested to be notified of such projects, were government entities, or owned land in the Project Area. Two comment letters were received from environmental groups and one from the forest industry concerning the proposed project.

A formal public comment period for the EA was held from June 15 to July 16, 2010. The BLM notified the public through a newspaper notice in the *Medford Mail Tribune* and a letter mailed to nine individuals, organizations, and government entities. The EA was also posted on the BLM Web site. The BLM received three letters containing comments on the EA.

Response to Public Comments

The comment letters the BLM received varied in their support of the Twin Ranch Forest Management project. Letters were received from Klamath-Siskiyou Wildlands Center (KSWC), Oregon Wild, and American Forest Resource Council (AFRC).The following are responses to the substantive comments received.

Blowdown Salvage

Comment: . . . the BLM had led us to believe that the large-scale salvage operations would relieve pressure on the Resource Area to log mature and late-successional forests elsewhere . . .

Response: In 2006 and 2007, the BLM was considering timber harvest in the Twin Ranch, Bowen Arrow, and Double Ginger timber sales in the Big Butte Creek fifth field watershed. These projects were postponed following the January 2008 windstorm that affected the Big Butte Creek and adjacent watersheds and the September 2008 Doubleday Fire that burned within the Big Butte Creek and Little Butte Creek watersheds. The BLM salvaged approximately 4,000 acres of blowdown timber and 700 acres of burned timber from these areas. As a result, the Butte Falls Field Manager made the decision to defer the Bowen Arrow and Double Ginger timber sales for fiscal year 2009. The Field Manager decided the anticipated volume from these sales that would have contributed to the ASQ for the Butte Falls Resource Area in fiscal year 2009 would not be offered from another location in the Resource Area. Because the majority of the Twin Ranch project area was not impacted by the blowdown or fire events, the BLM decided to analyze and offer the Twin Ranch timber sale.

Citizen Alternative

Comment: Please note that in our scoping comments we suggested reasonable parameters for an action alternative that would produce wood fiber, increase forest resiliency, and reduce road density while not increasing fire hazard in logging units. This Citizen's Alternative was largely based upon the findings contained in the relevant watershed analysis for the planning area. The BLM refused to analyze or consider such an alternative (KSWC, p. 3)

Response: KSWC's Citizen's Alternative proposed commercially thinning plantations; thinning true firs that have encroached in mixed conifer, pine, and hardwood stands to closer resemble the historic range of species variability; retaining large-diameter conifers; constructing no new logging roads; upgrading existing roads; and reducing road density.

As stated in the EA (p. 22), "The Twin Ranch project ID Team discussed the proposed Citizen's Alternative and determined Klamath Siskiyou's proposals have been adequately addressed in other BLM projects in the fifth field watershed, or are included in this current proposal."

The Twin Ranch project does not contain plantation thinning because the BLM has three thinning projects, which include plantation thinning, within the Big Butte Creek fifth field watershed that are either completed, being implemented, or will be implemented. The thinning projects were designed to favor retention of healthy Douglas-fir, incense cedar, sugar pine, and ponderosa pine over white fir. After thinning, the stands should more closely represent a more natural species mix.

The range of alternatives proposed in the Twin Ranch project contains features that address the remaining proposals in the Citizen's Alternative. The areas proposed for regeneration harvest in

Alternative 2 are changed to selection harvest leaving at least 40 percent canopy cover in Alternatives 3 and 4.

The project soil scientist proposed analyzing an alternative that used existing roads for harvest; no new temporary logging roads would be constructed. Alternative 3 originally contained no new road construction; however, after a closer look at operational needs, the ID Team decided to include construction of two short temporary spur roads (0.2 mile total) in Alternative 3 to allow operator access to harvest units 17-1 and 17-2. The temporary spur roads eliminated the need to construct landings within the riparian reserve adjacent to these harvest units.

In all action alternatives, road renovation will upgrade roads in the Project Area before they are used for management activities. A portion of BLM road 34-3E-35 (0.7 mile) will be fully decommissioned in all action alternatives in order to reduce road density (EA, p. 22).

Roads and Tractors

Comment: Attached to our scoping comments was a peer-reviewed article by Trombulack and Frissell (2000) detailing some of the negative impacts of road construction and use on Terrestrial and Aquatic ecosystems. The Twin Ranch EA largely failed to address and avoid the harmful impacts detailed in this study (KSWC, p. 5).

Response: In reviewing the Trombulack and Frissell (2000) article, it appears the impacts they address are impacts related to permanent roads or major road developments and not temporary roads. The short temporary spur roads proposed to be constructed do not create the same level of impacts raised in this article such as potential for collisions, altering the physical environment, and increasing human use that permanent road construction might need to consider. The Twin Ranch EA addressed other aquatic and terrestrial impacts raised in this article that were of concern in the construction of temporary roads.

The impacts of roads on aquatic systems are discussed in the EA on pages 57-60, 61, 63, 64-67. The impacts are minimized by implementing PDFs, building temporary roads instead of permanent roads, building temporary roads on stable locations, and removing temporary roads during the same operating season.

One temporary spur road (0.2 mile) will cross a short-term intermittent stream. This short-term intermittent stream only flows during the winter and will not have water in the channel during the operating season. After use the road will be ripped, seeded, and mulched to reduce the potential for erosion. No temporary roads will be constructed near perennial or long-term intermittent streams and no new permanent roads will be built. A road that is currently transporting sediment into a stream will be relocated out of a riparian reserve.

The Twin Ranch EA also addressed impacts such as mortality from road construction on terrestrial species of concern such as T& E and Bureau Sensitive species. The EA (p. 91) states, “The impacts from new road construction are expected to be minimal, as fishers could move into another area when the disturbance occurs.” These temporary roads are generally located on previous used skid trails where disruption of the physical environment has previously occurred.

The spread of exotic species on road construction was addressed in the (EA, pg. 165) “Proposed activities in Alternative 2 that could contribute to the introduction or spread of noxious weeds in the Project area include … construction or decommissioning of 1.2 miles of permanent and temporary spur roads, construction “ The implementation of the PDF’s along with the BLM

monitoring the project area 1-3 years after harvest to detect and treat noxious weeds that may become established would reduce the risk of introducing noxious weeds into the Project Area.

Comment: The cumulative impacts of "temporary" road construction, tractor yarding and tractor piling in this highly impacted watershed must be fully disclosed in an EIS. In addition to disclosing these cumulative impacts, we strongly urge the BLM to simply avoid the negative impacts associated with these practices (KSWC, p. 6).

Response: Decommissioning all temporary spur roads and newly constructed landings will loosen compacted soil and improve infiltration, reduce runoff, increase soil porosity, and accelerate reestablishment of vegetation (EA, p. 50). Ripping temporary spur roads and landings and revegetating these areas meets the ROD/RMP objectives to reduce soil compaction, minimize or reduce sedimentation, and improve site productivity by decommissioning roads and landings (ROD/RMP, p. 165)

During the development and implementation of the logging plan, the BLM will work with the contractor to further reduce the length and width of the temporary road where operationally feasible.

In the Twin Ranch project, commercial thinning (556 acres) and selection harvest (65 acres) will occur. Skid trails are typically not ripped in commercial thinning or selection harvest units in order to protect the roots of the residual trees. As a result, no skid trails will be ripped. This will result in a slight overall increase in compaction and a slight reduction in soil productivity on all harvest units. Although no skid trails will be ripped, the Medford District ROD/RMP long-term soil objectives will be met by using designated skid trails (EA, p. 53).

No tractor piling will occur in the Twin Ranch project.

Comment: Page 59 of the EA indicates that current road density in the planning area is 5.3 miles of road per square mile of forest. This is an astounding road density. The cumulative impacts on wildlife connectivity, hydrology and the maintenance obligation are significant adding yet more roads to this system necessitates completion of an EIS (KSWC, p. 6).

Response: Only temporary spur road construction and permanent road construction for road realignment will occur in the Twin Ranch project. These actions will not contribute to increased road density because the temporary spur roads will be fully decommissioned the same year they are used. In addition, the portion of the existing road being replaced during road realignment will be decommissioned. Approximately 0.7 mile of road will be decommissioned through this project to continue the trend on BLM lands of reducing the amount of roads in the watershed while minimizing construction (EA, p. 64-66).

The BLM acknowledges harvest activities may disturb individual wildlife species. However, they are not expected to affect the population persistence of any known wildlife species in the watershed.

The cumulative impacts of this project are not beyond those anticipated in the environmental impact statement for the 1995 Medford District ROD/RMP.

Comment: Page 59 of the EA also discloses that there are a total of 95 road/stream crossings in the project area. The cumulative and site-specific impacts of these crossing are significant. Indeed, the BLM acknowledges that "drainages with a large number of road stream-crossing are

more likely to experience an increased magnitude and frequency of peak flows." The impacts of log haul on this road network should be disclosed in an EIS (KSWC, p. 6).

Response: The BLM acknowledges that drainages with a large number of road-stream crossings are more likely to experience changes to peak flows. However, "analytical areas in the Twin Ranch project area have a low density of road-stream crossings" (EA, p. 59). Therefore, the Project Area is at low risk of experiencing an increased magnitude and frequency of peak flows.

One new temporary road-stream crossing on a short-term intermittent stream that will not have water present during use or before the crossing is removed and stabilized (EA, p. 63) will have very low to no risk of increasing peak flows. "The proposed road is on an existing skid trail used during the last harvest. A temporary culvert would be placed in the stream channel and removed the same season, limiting the potential for erosion and sedimentation. The rock placed over the culvert would be removed and the road would be ripped. The stream would be restored to natural flow, seeded, and mulched to further reduce the potential for erosion" (EA, p. 66).

Log hauling will use only 14 of the road-stream crossings in the Project Area (EA, p. 75). The low density of road-stream crossings in the Project Area will remain the same; therefore, peak flows are not expected to increase in frequency or magnitude as a result of this project. Haul routes with stream crossings are identified to be renovated or surfaced, which would limit the risk of sedimentation. The EA (p. 75) states the short-term impacts in stream sedimentation from hauling and road work is not expected to be detectable from the background levels.

Comment: Please note that page 44 of the EA indicates that the high road and skid trail density in the project area "results in slower infiltration rates, increased runoff rates, lower water supplying capacity of the soil, and reduced exchange of carbon dioxide and oxygen within the soil profile. These factors [have] reduced soil productivity in the project area." Again, these impacts are significant, and the proposal to exacerbate them through more road and skid trail construction should be documented in an EIS (KSWC, p. 7).

Response: The BLM acknowledges that compacted soil from roads and skid trails reduces soil productivity. The objective of the Medford District ROD/RMP is to limit the amount of soil compaction and subsequent soil productivity losses with the use of designated skid trails at an average 150-foot spacing or with less than 12 percent areal extent of disturbance from mechanical equipment by unit (EA, p. 46). The EA (p. 51) explains that with the implementation of PDFs #42 and #43, "soil compaction in all units would still meet the Medford District ROD/RMP (p. 166) long-term soil productivity objectives." Decommissioning all temporary roads and newly constructed landings would loosen compacted soil and improve infiltration, reduce runoff, increase soil porosity, and accelerate reestablishment of vegetation (EA, p. 50).

Comment: Page 58 of the EA concludes that "roads have three primary effects on hydrological processes: 1) they intercept rainfall directly on the road surface and road cutbanks and affect subsurface water moving down the hillslope; 2) they concentrate flow, either on the surface or in an adjacent ditch or channel; and 3) they divert or reroute water from paths it otherwise would take were the road not present." Yet the site specific impacts of road and skid trail construction on these processes is not disclosed in the EA (KSWC p. 7).

Response: No new permanent roads and 1.1 miles of temporary spur roads will be constructed. The temporary spur roads and associated landings will be built on stable locations, used, and decommissioned within the same operating season to minimize the potential for erosion to occur.

The effects will be mitigated by ripping, water barring, seeding, and mulching the decommissioned roads (EA, p. 66).

Approximately 0.7 mile of BLM road #34-3E-35 will be decommissioned. This natural surface road will be ripped, seeded, and mulched to restore water infiltration and reduce the total miles of roads in the Project Area (EA, p. 66).

Approximately 0.1 mile of a natural surface road that has water running on it during parts of the year will be realigned. The water running on this road surface is causing sediment to be transported downstream. By relocating the road out of the riparian reserve, the erosion, rutting, and sediment transport downstream will be reduced (EA, p. 67).

In order to minimize ground disturbance, existing skid trails will be used where feasible. Where new skid trails are needed to access harvest units, an average 150-foot spacing between trails will be maintained (EA, p. 21).

A short-term, intermittent stream with an existing skid trail crossing will be used for a temporary spur road. A temporary culvert will be placed in the stream channel and removed the same season before the rains, limiting the potential for erosion and sedimentation. After use, the rock placed over the culvert will be removed and the road will be ripped. The stream will be restored to natural flow, seeded, and mulched to further reduce the potential for erosion (EA, p. 66).

Comment: Please note that page 75 of the EA indicates that timber haul will involve two road/stream crossings of Coho Critical habitat. The efficacy of rocking to prevent sedimentation to these stream segments is not disclosed or analyzed in the EA (KSWC, p. 7).

Response: Both road-stream crossings of coho critical habitat are on the North Fork Big Butte Creek. Additional rock will be added to this road and seasonal restrictions will be enforced on rock hauling, timber hauling, and landing operations whenever soil moisture conditions or rain events could result in road damage or the transport of sediment (EA, p. 19, PDF #25). Short-term sedimentation from hauling, road renovation, and road surfacing is not expected to be detectable from background rates (EA, p.75).

Cumulative Impacts

Comment: We are particularly concerned with cumulative and connected impacts from the Camp Cur and Bowen Arrow timber sales. Indeed, we believe that the site-specific significant cumulative impacts from three projects must be documented in an Environmental Impact Statement (EIS) (KSWC, p 7).

Response: The Bowen Arrow Timber Sale, a previously considered timber sale within the Big Butte Creek fifth field watershed, was dropped from the planning process following the 2008 windstorm that occurred in the proposed project area.

The Twin Ranch EA provided an assessment of cumulative effects that includes the Camp Cur Timber Sale and determined there were no significant effects greater than those analyzed in the environmental impact statement for the Medford District ROD/RMP; therefore, an environmental impact statement is not needed. The Twin Ranch EA addressed the past and future actions including the Camp Cur Timber Sale in the Affected Environment and Environmental Consequences sections for each resource (EA, p. 33-106).

Northern Spotted Owls

Comment: Please note that page 99 of the EA indicates that both Alternatives 2 and 4 will downgrade 255 acres of Nesting Roosting and Foraging habitat. Please further note that the BLM has elected not to consult with USFWS regarding Alternative 3. Hence it is certain that Alternative 2 or 4 will be selected. Given that both of these action alternatives call for downgrading (the exact same acreage) of NRF habitat, the BLM has not considered a full range of action alternatives. Indeed, it is inevitable that the BLM will select an action that downgrades 255 acres of NRF. NEPA does not allow the BLM to conduct NEPA to justify a decision that has already been made (KSWC, p. 9).

Response: Consultation with the Service is completed prior to a NEPA decision. Alternative 2 was the preferred alternative for consultation purposes. If the decision maker chooses a different alternative with higher impacts than the one consulted on, then consultation with the Service would be reinitiated prior to the Decision Record being signed. The proposed actions in Alternative 4, the selected alternative, will have fewer impacts than those consulted on, so reinitiation of consultation is not necessary.

Goshawks

Comment: As disclosed on page 89 of the Twin Ranch EA, the BLM has no site-specific population data and has conducted no surveys for Goshawks. Hence the potential impacts to this species from the project have not been fully analyzed or disclosed. The decision maker cannot make an informed decision, and the public cannot make informed comments, given that the BLM has failed to take the required "hard look" at this species (KSWC, p. 9).

Response: Goshawks are not on the BLM special status species list; however, they are protected under ROD/RMP guidelines. No goshawks have been located in the Twin Ranch Project Area (EA, p. 89). Systematic protocol surveys in suitable goshawk habitat were completed in the Project Area in 2006 when the timber sale was first proposed for consideration. Additional spot surveys were done in the watershed in 2007, 2008, 2009, and 2010 near historical locations. Five historic goshawk nesting territories are located within the Big Butte Creek fifth field watershed; three of these territories are within the Project Area. BLM wildlife biologists have monitored the historic nest stands annually since they were discovered. Only 1 nest in the Project Area, protected within a 100-acre known northern spotted owl activity center, has been active in the last 6 years. All known goshawk historic nest trees will be protected from harvest (EA, p. 18, PDFs 4 and 5). The remaining two historic goshawk nest trees in the Project Area, located on matrix lands, are not within harvest units (EA, p. 86).

Neotropical Birds

Comment: The analysis on page 97 of the EA regarding impacts to Neotropical Bird species is misleading in the extreme. The contention that via the proposed logging "there would be more habitat with higher canopy cover" is dead wrong. In fact every action alternative calls for significantly reducing canopy cover via logging (KSWC, p. 9).

Response: Selection harvest and commercial thinning will reduce 608 acres of understory habitat. This will remove some hiding cover and nesting habitat for Neotropical birds that use older forests. However, riparian reserves, unharvested areas, 100-acre known northern spotted

owl activity centers, late-successional habitat retention, and connectivity/diversity block acres will preserve patches of late-successional habitat for cover and nesting birds that use late-successional forests. Habitat will be improved for species that use the open understory within the selection harvest and commercial thinning units (EA, p. 99).

Pacific Fishers

Comment: By removing habitat near fisher home ranges the BLM will lessen the ability of these individuals to live and reproduce in the planning area. The fisher is warranted (but precluded due to USFWS economic considerations) from listing under the ESA. The BLM actions can't legally lead to a trend toward listing a species under the ESA. Information regarding Fisher populations and population trends were not disclosed in the EA KSWC p. 9).

Response: Late-successional forest generally contains the features fishers use: large overstory trees, hardwoods, high canopy, snags, and coarse woody debris. Most of the forested Federal land in the Big Butte Creek fifth field watershed is considered to be fisher habitat. There are 25,630 acres of forested acres on BLM-administered lands in the fifth field watershed, with 62 percent of these lands in late-successional forest. The Forest Service lands adjacent to the BLM lands in the fifth field watershed provide contiguous habitat for fisher.

Forest management activities will occur on 624 acres: 558 acres of thinning and 66 acres of selection harvest. Harvest treatments will not remove late-successional forest, although canopy cover will be reduced from 60 percent or greater to a minimum of 40 percent. Existing large, coarse woody debris and all snags that do not need to be felled for safety reasons will remain in the stands after harvest activities.

An array of stand ages and structures will remain after completion of the project. Fisher forage in young stands with high canopy. Although a loss of overstory and understory trees will occur, the areas will still provide the primary constituent elements for fishers (e.g., snags, coarse woody debris, large overstory trees, prey). Forested acres in the watershed will remain available for fisher foraging, resting, and dispersal. Areas in younger forests with snags and root wads will provide foraging, resting, and denning opportunities.

The Twin Ranch project is not expected to substantially affect denning or resting habitat. Although fishers are considered to be naturally rare in the area, the effects to fisher populations from the Twin Ranch project are not expected to reduce the persistence of fishers in the southern Oregon Cascades (EA, p. 98).

Soils

Comment: Please note that the Watershed Analysis is replete with findings indicating that the extreme road density and skid trail density in the watershed has severely impacted soil health and productivity. Yet these impacts are largely downplayed or ignored in the EA (KSWC, p. 10).

Response: The project Interdisciplinary Team considered the recommendations from the Central Big Butte Watershed Analysis (WA) when developing alternatives for the Twin Ranch Forest Management Project (see discussion in Decision Rationale).

Road and skid trail density were addressed in the EA (p. 44-45) in Section 3.3.3, Soil, Affected Environment.

Restricting mechanical equipment to existing and designated skid trails (PDF 50) will maintain the current level of soil compaction, which currently meets the Medford District ROD/RMP (p. 166) objective for long-term soil productivity on a unit-by-unit basis, in all treatment units (624 acres). New skid trail construction will slightly increase soil compaction in the commercial thinning units (454 acres). All units will meet soil productivity objectives by continuing to maintain an average 150-foot spacing on the skid trails.

Decommissioning all temporary spur roads and newly constructed landings will loosen compacted soil and improve infiltration, reduce runoff, increase soil porosity, and accelerate reestablishment of vegetation. The estimated amount of loss in soil productivity within the area of disturbance from constructing and subsequently ripping the temporary spur roads will be approximately 15 percent initially. Although an improvement in soil physical properties is initially achieved when ripping compacted soil with a winged-tooth ripper, it may take longer than 10 years for recovery of the remaining 15 percent of soil productivity loss on the roads and landings that will be decommissioned. Placing logging slash and applying grass seed and straw mulch on the decommissioned roads will help increase organic matter accumulation, improve nutrient availability, protect the soil surface from erosion, and expedite restoration of soil productivity (EA, p 50).

Skid trails will not be ripped in order to protect the roots of the residual trees in the harvest units. As a result, there will be an overall increase in compaction and a slight reduction in soil productivity on all harvest units. Although skid trails will not be ripped, the long-term soil objectives from Medford District ROD/RMP will be met with the use of designated skid trails (EA, p. 53).

Comment: In addition, both action alternatives that have been consulted on (Alternatives 2 and 4) call for 517 acres of biomass removal. The impacts of whole tree yarding and biomass removal on soils and nutrients are not adequately analyzed or disclosed in the EA (KSWC, p. 10).

Response: Trees less than 24 inches in diameter will be whole-tree yarded in the majority (83 percent) of the harvest acres. Removing the vegetative biomass (e.g., tree boles, branches, and foliage) may alter the existing nutrient pool, although it is not expected to be detrimental to long-term site productivity. Whole-tree harvesting removes more nutrients compared to harvesting the main tree bole only. About half the above-ground nutrients of a conifer tree are in the branches and needles; the other half are in the bole and bark up until the stand canopy closes. The effect on the nutrient pool depends on the amount of vegetation removed, rotation length, and site productivity (EA, p. 50).

The greatest impact of nutrient loss on site productivity occurs on low quality sites and in forests that are managed on short (less than 60 years) rotations. Neither of these conditions exists in the Twin Ranch Project Area. The site quality is considered good (average site class 3) and the rotation length is a minimum of 100 years. Both of these factors allow for relatively rapid nutrient recovery. The effects of slash removal on nutrient budgets are short term with sites recovering to preharvest nutrient levels within approximately five years (EA, p. 51). Coarse woody debris, which also plays an important role in long-term soil productivity, will remain at current levels, in compliance with the Medford District ROD/RMP (p. 45) coarse woody debris standard (EA, p.51).

Aquatic Conservation Strategy

Comment: The proposal (EA page 66) to construct a logging road across a "short-term intermittent stream" directly inhibits attainment of the objectives of the ACS (KSWC, p. 10).

Response: The standards and guidelines of the Aquatic Conservation Strategy (ACS) focus on "meeting" and "not preventing attainment" of the ACS objectives. The intent is to ensure the proposed management activity is consistent with the ACS objectives. An ACS Consistency Analysis was prepared for the Twin Ranch Forest Management Project (EA, Appendix E, p. 198-206). The analysis is based on the proposed project activities combined with specific PDFs that will maintain or restore each ACS objective. ACS Objectives 6, 8, and 9 addressed the use of an existing skid trail within a riparian reserve as a temporary road and determined all ACS objectives will be met in the short and long-term (EA, p. 204-205).

Comment: The BLM has made no showing that commercial logging and canopy reduction in Riparian Reserves is "needed" to attain ACS objectives. The Forest Plan and the Medford BLM LRMP only allow logging within Riparian Reserves when it is "needed" to attain the objectives of the ACS. No such showing has been made here (KSWC, p. 10).

Please note that the impacts of logging the outer 100′ of Riparian Reserves on snag recruitment and retention, wildlife connectivity, forest canopy and interior wildlife habitat are not disclosed in the EA. Such logging may directly inhibit attainment of objective 8 of the ACS (KSWC, p. 10).

Response: After considering public concerns, the BLM decided to defer riparian reserve thinning. These stands may be assessed for forest management activities at a later date.

Comment: The BLM continues to manage over 5.3 miles of logging road per square mile of forest in this watershed. (EA page 59). This extreme road density is inhibiting attainment of ACS objectives. Yet the agency is proposing yet more road construction via this EA. "Drainages with a large number of road stream-crossings are more likely to experience an increased magnitude and frequency of peak flows." (EA page 59) (KSWC, p. 10).

Response: Road construction in the Twin Ranch project consists of temporary road construction or road realignment. Temporary roads will not contribute to increased road density and the permanent road construction included in the road realignment project will nearly equal the amount of road decommissioned. Approximately 0.7 mile of road will be decommissioned in this project to continue the trend on BLM lands of reducing the amount of roads in the watershed while minimizing construction (EA, p. 64). The BLM acknowledges that drainages with a large number of road-stream crossings are more likely to experience changes to peak flows. However, the Twin Ranch Project Area has a low road-stream crossing density (p. 59) and, therefore, a low risk of an increase in the magnitude and frequency of peak flows. Also, only one new temporary road-stream crossing will be used. It is located on a short-term intermittent stream that will not have water present during use or before it is stabilized (EA, p. 63). It will have a very low to no risk of increasing peak flows.

Noxious Weeds

Comment: Intensive forest management and log extraction risks introduction and spread of noxious weeds. Vehicular travel and road construction are the highest risk vector for alien plant

invasions. The EA is largely silent as to mitigation measures and their empirical effectiveness under similar site conditions. Please do not blindly exclusively on generic mitigation measures from the Land Resource Management Plan (KSWC, p. 11).

Response: Although management activities, including timber harvest and road construction, have previously occurred in the Project Area, the Twin Ranch Project Area is relatively free of the noxious weeds the Medford BLM targets for treatment (EA, p. 162). However, because timber harvest and road work present risks of introducing or spreading noxious weeds, the BLM will implement management actions using PDFs, BMPs, and other mitigating measures to reduce those risks during harvest activities and road work (EA, p. 19, 165-166). PDFs were developed by individuals with backgrounds in weed prevention and control and are the recommended weed prevention strategies of the western states BLM weed coordinators and weed specialists from agricultural research services, state agencies, Universities, weed societies, and weed advisory councils (EA, p. 165). In addition to these weed prevention strategies, the BLM will continue to implement an ongoing noxious weed program in the resource area, including monitoring timber sale areas and documenting and treating noxious weeds (EA, p. 166, Table B-3).

Fire Hazard and Risk

Comment: Please note that our previous scoping comments requested that the BLM disclose the effect of leaving untreated logging slash in the timber sale units even for a short period of time. Be explicit about potential wildfire behavior and risk of escape from initial attack prior to slash clean-up (KSWC, p. 11).

Response: Whole tree harvesting and yarding with tops attached on 517 acres will result in the immediate removal of logging slash during the logging operation. The BLM will conduct a fuels assessment within each unit following harvest activity. This assessment will determine the fuel hazard and fire risk based on surface fuel loading, aspect, slope, access, and location of each unit. All fuels treatments will begin within 30 days after completion of harvest activities. Immediately following forest management activities and prior to slash disposal, fire behavior potential will increase from the current potential fire behavior due to increased surface fuels. Following slash disposal treatments, a reduction in potential fire behavior will occur (EA, p. 104).

Comment: The EA should address the potential for reduced canopy closure to increase solar radiation, ground level wind speed, surface fuel moisture and flammability to result from proposed timber harvest. Implications for fire suppression effectiveness and worker safety also should be addressed (KSWC, p. 14).

Response: It is true that reduced canopy closure from thinning treatments has the potential to increase surface wind speed and solar radiation, which could reduce surface fuel moistures and increase flammability. However, it is also true that thinning treatments could reduce torching and crowning potential by increasing canopy base heights and decreasing canopy bulk densities (EA, p. 104). According to Agee (2005) and Witherspoon (1996), when thinning is followed by sufficient treatment of surface fuels (i.e., whole-tree yarding to reduce potential surface fuels), the overall reduction in expected fire behavior and fire severity usually outweighs the changes in fire weather factors such as wind speed and fuels moisture.

Comment: The contention that untreated stands trend toward "increasing fire behavior" lacks justification. Please note that Fire severity may diminish in mixed evergreen forests as the duration of fire return increases. Odion and colleagues (2004) studied fire severity patterns in the 1987 Klamath fire complex and learned that structurally diverse mature forests with closed canopies overwhelmingly experienced low and moderate severity fire effects (up to 13 percent high severity – expressed as tree canopy mortality due to data limitations) (KSWC p. 14).

Response: The key words in the comment above from the Odion and colleagues (2004) study are "structurally diverse mature forests." The older, structurally complex stands in the Project Area that were classified as RA32 stands generally correspond to the "structurally diverse mature forests" described in the Odion and colleagues study. These stands will not be treated in this project. The stands proposed for treatment have all had past harvest entries and are not untreated stands. These stands are described as overstocked with high densities (EA, p. 101). Overstocked stands have a greater potential for severe, stand-replacing wildfires.

Plantations Increase Fire Hazard

Comment: We are very concerned that proposed even-age harvesting activities may increase fire hazard in the Twin Ranch planning area. Post harvest tree planting would establish even-age plantations containing unnaturally combustible fuel complexes, further increasing the severity and difficulty of control of the next fire (KSWC p. 15).

Response: No regeneration harvest will occur under the selected alternative (Alternative 4). Without regeneration harvest, tree planting will not be necessary and no new, even-aged plantations will be established.

Restorative Ecological Value

Comment: Active management should be focused on areas where we can provide real ecological benefits, i.e. restoration. We can usually support variable thinning in young stands but we want to make sure that the rationale is sound and well supported. Road construction, logging in stands over 80 years, logging in riparian reserves, and regen harvest are not generally well-supported because they lack restorative ecological value (Oregon Wild, p. 1).

Response: The purpose of the Twin Ranch project was not specific to restoring ecological values. The purpose was to design commercial timber sales on matrix land, reduce stand and tree densities, maintain or enhance forest health, and enhance and accelerate the production of large diameter conifers in riparian reserves. The project will address the need for reversing the declining growth rates in older forests, providing short- or long-term vehicular access to timber harvest units, and maintaining existing northern spotted owl habitat within 1.2 miles of known active northern spotted owl sites and all or substantially all of the older and more structurally complex, multilayered conifer forests in the Project Area (EA, p. 6).

The silviculture treatments in the Twin Ranch project are forest condition restoration treatments intended to reduce tree mortality and restore the vigor, resiliency, and stability of forest stands that are necessary to achieve resource management objectives (ROD/RMP, p. 186). Dense forest stands in the Project Area have decreased tree growth; decreased volume production; increased mortality in suppressed tree; and increased susceptibility to insects, disease, and severe fire behavior (EA, p. 33). The silviculture treatments in the Twin Ranch project provide an

ecological benefit by reducing the number of trees toward levels the site has water and nutrients to sustain (EA, p. 37). By reducing stand densities toward the carrying capacity of the site, stand vigor, resiliency, and stability will generally increase.

Comment: Regen harvest should be avoided. Let's allow fires and other natural processes determine when forests should be regenerated (Oregon Wild, p. 1).

Response: Regeneration harvest will not occur in the Twin Ranch project under the selected alternative.

Comment: Logging in spotted owl habitat should be avoided because we need to protect additional spotted owl habitat in the matrix to mitigate for all the owl habitat in the reserves that is occupied and defended by barred owls (Oregon Wild, p. 2).

Response: No activities will occur within the 100-acre activity center or 300-meter radius nest patch of any known northern spotted owl. All stands that meet Recovery Action 32 (RA32) will be deferred from harvest. RA32 stands are intended to maintain substantially all of the older and more structurally complex multilayered conifer forests on Federal lands in order to alleviate the competitive interactions between spotted owls and barred owls. The RA32 stands provide hiding cover for the spotted owls so they can avoid pursuit by the more aggressive barred owls (EA, p. 82).

Comment: Prescriptions should be variable, not even spacing. The matrix is not a tree farm. It is also supposed to serve some ecological purposes. Please include untreated skips and heavily thinned "gaps" (not mini-clearcuts) (Oregon Wild, p. 2).

Response: Unlike uniform, even-aged Douglas-fir stands in the Coast Range, the mixed-conifer forests of southwest Oregon have inherent structural and species diversity. The silviculture prescriptions for the Twin Ranch project take advantage of natural stand variability by retaining a diversity of species at varying spatial densities (EA, p. 150). Even spacing of trees is not desired or prescribed under the silviculture prescriptions.

Future Snag Recruitment

Comment: The EA glosses over the adverse impacts of logging on long-term recruitment of snags and down wood. This is one of the most significant and long-lasting effects of commercial logging because every tree that is removed represents the loss of a potential snag (Oregon Wild, p. 2).

Response: The Twin Ranch project will thin trees from below on approximately 90 percent of the treatment acres and selectively harvest trees across all diameter classes on the remaining 10 percent. Thinning from below will remove smaller suppressed and intermediate trees (generally less than 20 inches in diameter) that are prone to suppression-related mortality. Selection harvest will remove trees across all diameter classes. The intent of thinning and selection harvest on the matrix land use allocation is to reduce stand densities to levels the site has resources to support, increase tree growth, and reduce the rate of tree mortality. The post-treatment stands will contain 40 to 100 intermediate, codominant and dominant conifer trees per acre, variable amounts of conifer and hardwood trees less than 8 inches in diameter per acre, all hardwoods greater than 12 inches in diameter, and current stage 1 or 2 snags 20 inches and greater (EA, Appendix A, p.135-

156). These various stand components provide ample sources for the development and recruitment of future snags.

About 70 percent (approximately 600,000 acres) of BLM-administered lands on the Medford District are not proposed for timber management activities. In addition, the BLM has identified 330 acres of RA32 stands within the Project Area which will not be treated under this decision. Because the vast majority of BLM-administered lands are not allocated to intensive or restricted forest management, it is expected that large snag recruitment will occur at natural rates and levels within those areas. On the remaining 30 percent (approximately 250,000 acres) of BLM-administered lands designated as matrix, the PRMP/EIS assumes an annual timber harvest of 3,000 acres. On those acres, a supply of large live trees and snags are retained to provide habitat for cavity-using birds, bats, and other species, while providing a sustainable supply of timber to provide jobs and contribute to community stability. Snags and green trees are retained at levels sufficient to support species of cavity-nesting birds at 40 percent of potential population levels (ROD/RMP, p. 40). Generally, large snags are defined as 20 inches in diameter and greater.

Economics

Comment: Appropriate harvesting systems should be used to achieve an economically viable sale and increase the revenues to the government and O&C Counties. We encourage you to use temporary roads and spurs to access units for use of the most economical harvesting systems (AFRC, p. 1).

Response: The Twin Ranch project will use temporary roads to reduce yarding distances, as well as logging costs, in units where yarding distances are too long to be economically efficient.

Seasonal and Wildlife Restrictions

Comment: Seasonal and wildlife restrictions often make timber sales extremely difficult to complete within the contract timelines. Fire season restrictions on top of seasonal and wildlife restrictions can often limit workdays to 4-5 hours. All these restrictions have a cost to the purchaser and results in a lower bid for the stumpage. We strongly suggest that the BLM carefully examine sale restrictions and minimize those restrictions where possible (AFRC, p. 2).

Response: Seasonal restrictions have been examined and are based on direction in the Medford District ROD/RMP or the Northwest Forest Plan. These restrictions are specific to particular species known to have occurred in the units or related to conditions on the ground, such as high soil moisture, that normally occur at certain times of the year. Seasonal restrictions may be modified under certain circumstances, for instance, if surveys indicate a nest site is not being used or soil moisture is lower than normally anticipated at that time of year. The timber sale contract is a 3-year contract and the BLM anticipates there will be adequate operating time to complete this sale.

Fuels Treatment

Comment: AFRC would like to see the BLM fuels treatments prescriptions have some flexibility. Rather than specifying a specific method of accomplishing your resource objectives, you should instead identify the objectives you are trying to accomplish and any limitations to

resource disturbance you require. The purchaser could then identify the method they would like to implement to meet the resource objectives given their particular employee/equipment mix (AFRC, p. 2).

Response: The proposed methods of fuels reduction have been selected because they meet resource objectives. The contract allows flexibility for both the BLM and the contractor by not requiring a specific treatment for each unit. The BLM will perform a post-activity fuels assessment to determine the necessary fuels treatments for each timber sale unit.

Administrative Remedies

The decision described in this document is a forest management decision and is subject to protest by the public. In accordance with Forest Management Regulations at 43 CFR Subpart 5003 Administrative Remedies, protests of this decision may be filed with the authorized officer, Jon Raby, within 15 days of the publication date of the notice of decision/timber sale advertisement in the *Medford Mail Tribune*, Medford, Oregon. The protest must clearly and concisely state which portion or element of the decision is being protested and the reasons why the decision is believed to be in error.

43 CFR § 5003.3 subsection (b) states: "Protests shall be filed with the authorized officer and shall contain a written statement of reasons for protesting the decision." This precludes the acceptance of electronic mail (email) or facsimile (fax) protests. **Only written and signed hard copies of protests delivered to the Medford District Office will be accepted.** The Medford District Office is located at 3040 Biddle Road, Medford, Oregon.

43 CFR § 5003.3 subsection (c) states: "Protests received more than 15 days after the publication of the notice of decision or the notice of sale are not timely filed and shall not be considered." Upon timely filing of a protest, the authorized officer shall reconsider the project decision to be implemented in light of the statement of reasons for the protest and other pertinent information available to him. The authorized officer shall, at the conclusion of the review, serve the protest decision in writing to the protesting party(ies). Upon denial of a protest, the authorized officer may proceed with the implementation of the decision as permitted by regulations at 5003.3(f).

If no protest is received by the close of business (4:30 p.m.) within 15 days after publication of the decision notice, this decision will become final. If a timely protest is received, the project decision will be reconsidered in light of the statement of reasons for the protest and other pertinent information available, and the Butte Falls Resource Area will issue a protest decision.

Jon K. Raby
Field Manager
Butte Falls Resource Area

8/16/10
Date