

**Back in Black Regeneration Harvest Plan
Environmental Assessment
DOI-BLM-ORWA-R040-2014-0007-EA
Swiftwater Field Office, Roseburg District
Finding of No Significant Impact**

Overview

The Back in Black Regeneration Harvest project was designed to apply management direction from the 1995 Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP), which is tiered to the 1994 Roseburg District *Proposed Resource Management Plan/Environmental Impact statement* (PRMP/EIS).

The Back in Black Regeneration Harvest Plan Environmental Assessment (EA) analyzed two alternatives, No Action (Alternative One), and the Proposed Action (Alternative Two). As described in the EA (pp. 18-24), Alternative Two would conduct regeneration harvest, as provided for in the 1995 ROD/RMP, on 530 acres in nine units located within the General Forest Management Area (GFMA) land use allocation. Yarding may be allowed through Riparian Reserves where necessary, subject to pre-designation of the yarding corridors and authorization by the contract administrator.

The project is consistent with the 2001 ROD and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines, as incorporated into the District Resource Management Plan (USDA and USDI 2001). This project utilizes the December 2003 species list. This list incorporates species changes and removals made as a result of the 2001, 2002, and 2003 Annual Species Reviews (ASR) with the exception of the red tree vole. Details of required project surveys are described within the Back in Black EA analysis (EA pp. 12-13, 31-33, 36).

As stated in the Record of Decision for the Northwest Forest Plan, the Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems on public lands within the range of Pacific Ocean anadromy. Consistency of the proposed action alternative with the ACS objectives is included in Chapter 3 of the EA (pp. 93-98).

Both context and intensity must be considered in determining significance of the environmental effects of agency action (40 CFR 1508.27):

Context

The project area is within the Calapooya Creek watershed and a small portion of the Lower North Umpqua River watershed, which collectively drain an area of approximately 263,600 acres. Portions of the lands in the project watersheds managed by the Swiftwater Field Office total approximately 23,900 acres (EA p. 1), representing approximately 9 percent of the land base.

Alternative Two would treat up to 530 acres; approximately 0.2 percent of all lands in the project watersheds, and 2.2 percent of BLM-administered lands in the project watersheds. This would not bear any regional, statewide, national or international importance.

Intensity

The Council on Environmental Quality includes the following ten considerations for evaluating intensity.

1. *Impacts may be both beneficial and adverse. - 40 CFR 1508.27(b) (1)*

The proposed regeneration harvest could have potentially beneficial and adverse impacts, but these would not be significant as they would be consistent with the range and scope of effects associated with timber management that were described and analyzed in the 1994 Roseburg PRMP/EIS (Chapter 4), to which the EA is tiered.

The proposed regeneration harvest would produce a sustained yield of forest products, which in turn would provide local employment, wages to timber workers and employees in associated industries, and generate revenues for local, state and federal governments (EA p. 2; ROD/RMP 55, 60). These managed GFMA lands within the Back in Black project area would promote tree survival and growth to achieve a balance between wood volume production, quality of wood, and timber value at harvest (EA p. 2; ROD/RMP, p. 60).

Beneficial Effects

Forest Vegetation

As described in the EA (pp. 41-42), the early-seral stage has the least representation on BLM-managed lands in the Calapooya Creek watershed, at less than one percent, while the late-seral stage has the most, at 42 percent (EA pp. 41-42, Table 3-1). The proposed regeneration harvest would help develop a more desirable age-class distribution within the General Forest Management Area as described in the PRMP/EIS (Chapter 4-26 & 27), and be consistent with management direction from the ROD/RMP (pp. 61 and 151), by converting 530 acres of late-seral stands greater than 60 years old to the early-seral stage. The proposed harvest units in the Back in Black project would increase the amount of BLM-managed acres in the early-seral stage from near zero to ten percent within the Calapooya Creek watershed (EA p. 45). Early-seral (open canopy) conditions would persist within the harvested areas for about two decades, although by definition the stand would be classified as mid-seral stage 15 years post-harvest (EA p. 46).

Planted commercial conifer species would enhance the potential for prompt development of a conifer-dominated forest stand (Tappeiner et al. 2007) (EA p. 48) as directed in the ROD/RMP (pp. 63, 148) and the Oregon and California Revested Lands Act (O&C Act). The composite effects of harvest types and distribution would provide during the 50 to 100 years post-harvest many attributes found in unmanaged mature and old-growth forest stands within the harvested area, trending to a mature stand condition with a multiple-canopy structure. Retention trees within harvested areas would provide short- and long-term live and dead structural legacies (EA p. 47).

Wildlife

The proposed action is comprised of younger stands within dispersal quality habitat. Project design features would retain and/or promote structural diversity and complexity within the treated stands. In addition, Recovery Action 6 places an emphasis on retaining the oldest and largest trees in the stand or any trees that create stand diversity. The harvest prescription in Alternative Two include elements of retaining legacy structures, large trees, and structural complexity (i.e. large snags and/or down wood, multiple canopy layers and vegetative shrub and hardwood diversity). The intent of Recovery Action 6 was met because reasonable efforts were made to locate forest management activities in younger stands and to design the prescription under Alternative Two to minimize impacts to the northern spotted owl (EA p. 75).

Areas where regeneration harvest occurs would promote the establishment and growth of herbaceous plants, forbs and shrubs that would provide organic nutrients, shelter, and forage for an array of birds, mammals, and invertebrate species, including prey species for the northern spotted owl (EA p. 71).

Approximately 530 acres would shift from providing prey species associated with mature forest to prey species associated with early-successional habitats. For species that are found in early- and mid-seral forest habitat (Maser et al. 1981; Sakai and Noon, 1993; Carey et al. 1999), populations would increase by creating 530 acres of early-seral habitat with diverse communities of flowering and fruiting shrubs, herbs, and grasses that would provide cover and abundant forage (EA p. 71).

Cumulative effects of the timber harvest would primarily benefit prey species for the northern spotted owl. Thinning 55 percent of young forest habitat within the Calapooya watershed would create stand conditions (i.e. understory development) beneficial to prey species. Additionally, 10,276 acres of untreated habitat would provide adequate habitat for northern spotted owl prey species throughout the watershed (EA p. 80).

Cumulative effects of the timber harvest would benefit landbirds that rely on early-seral forests. Removal of late-seral habitats would create 593 acres (530 acres in the Back in Black project area and 63 acres in the Calapooya project area) of complex early-seral habitat within the watershed (EA p. 84).

Water Resources

Road maintenance associated with the Back in Black project would occur prior to timber haul and would install cross drains and maintain ditchlines along proposed haul routes to disconnect roads from the stream system. This would reduce the amount of road related sediment entering streams in the project area (EA p. 90).

Riparian Reserves of 180-360 feet would be untreated along all streams (EA p. 25), and would provide root strength sufficient to maintain bank stability (USDI BLM FEIS 2008), protect eroding banks, and prevent additional sediment from entering streams (EA p. 92).

Based upon the information presented on pages 93 through 98 of the EA, this project would not retard or prevent attainment of ACS objectives. Therefore, this action is consistent with the ACS and its objectives at both the site and watershed scales.

Noxious Weeds

Noxious weeds would decrease in abundance as the canopy closes, due to reforestation and stand maintenance (Tables 3-6 and 3-7), and native understory species would eventually overtop and out-compete the weeds for sunlight, soil moisture, and soil nutrients (EA p. 100). Herbicide treatments would be applied when needed and revisited at 5-10 year intervals, depending on funding and the priority of treatment projects (EA p. 101).

Soils

Landings and heavily compacted skid trails would be subsoiled to reduce soil compaction. Subsoiling would reduce soil bulk density and provide some soil aeration, allowing for natural reseeding of trees, and contributing to the survival and growth of both natural and planted seedlings. Subsoiling would also help prevent runoff and erosion by increasing infiltration capacity (EA p. 108). Part of the subsoiling process would include placing slash, other organic debris, and topsoil over the tilled areas to reduce surface soil erosion, and replace organic material, nutrients, and soil microbes to help maintain soil productivity. Slash, other organic debris and topsoil would cover at least 50 percent of the subsoiled areas within ground-based units (EA pp. 26, 108).

Portions of cable yarded units would yard whole trees with tops and branches attached. Whole-tree yarding removes nutrients contained in tree branches and tree tops from the units. However, needles, twigs and small branches generally fall off during felling and yarding, so some nutrients from these sources would remain in the units. Whole-tree yarding also helps to avoid the need to broadcast burn prior to planting. By avoiding broadcast burning, the existing duff and litter in the units would be maintained, and the potential for surface soil erosion would be greatly reduced (EA p. 108).

Road decommissioning would have positive effects on soil productivity by reducing soil erosion by constructing waterbars or mulching (EA p. 109).

The regeneration harvest would accelerate the growth of residual trees left in the stand and along the borders. Understory vegetation, such as shrubs, forbs and grasses, would respond to the increased light in openings taking up increased soil moisture and stabilizing the soil. Additionally, the proposed reforestation and stand maintenance treatments would promote the recovery of root strength, which would reduce the probability of landslides in the future (EA p. 110).

Fuels Management

To reduce concentrated fuel loads, 42 acres of activity fuels would be machine-piled and burned at landings under Yarding Option A (392 acres of cable yarding and 138 of ground-based yarding), while 55 acres would be machine-piled and burned at landings under Yarding Option B (530 acres cable yarding and no ground-based yarding; EA pp. 18-19, 24, and 116; Tables 2-1 and 2-3). In addition, small fuels would be piled along roadways, in all areas identified as ground-based harvest, and along some property line boundaries (168 acres for Yarding Option A or 179 acres for Yarding Option B).

Treatment of activity fuels in this manner would have multiple benefits. Treatment along roadways would reduce risk of roadside ignition and increase the viability of those roadways as fuel breaks in the event of a wildfire. Treatment of areas identified for possible ground-based harvest, regardless of actual yarding method, in the interior of units would reduce the amount of slash and create gaps in the slash, altering it from moderate load activity fuel (SB2) to low load activity fuel (SB1). Predicted flame lengths would correspondingly reduce from 5-14 feet to 3-7 feet, and fire risk would decrease from moderate/extreme to low/moderate. Breaking up the continuity of the fuels would make fires less likely to carry through units and increase the number of possible fire line locations (EA p. 116).

Adverse Effects

Wildlife

Species associated with structurally complex forests would not benefit from treatment under Alternative Two in the short term (50 years), because some existing suitable habitat components (e.g. large remnant trees or snags retained from previous harvest activities) associated with mature or late-seral forest habitat would be removed. Regeneration harvest would change microclimate conditions and disturb habitat features, exposing microsites to harsher environmental conditions, increasing predation risks, reducing food sources and other habitat features required for survival (EA p. 76). However, project design features retain and/or promote structural diversity and complexity within the treated stands. The harvest prescription in Alternative Two includes elements of retaining legacy structures, large trees, and structural complexity (i.e. large snags and/or down wood, multiple canopy layers and vegetative shrub and hardwood diversity). The intent of Recovery Action 6 was met because efforts were made to locate forest management activities in younger stands and design the prescription under Alternative Two to minimize impacts to the northern spotted owl (EA p. 75).

In units where seasonal restrictions would not be implemented, harvest activities would occur during the landbird breeding season. This would cause disturbance to nesting land birds, including destruction of nests and eggs, and death of young birds, during up to three breeding seasons (EA p. 79).

Where regeneration harvest occurs, forest stands would not be considered red tree vole habitat for approximately 60 years or until QMD exceeds 18 inches (Appendix I). Although active nest trees may be retained, red tree voles would be vulnerable to predation in the concentrated harvest area (EA p. 78).

Water Resources

Timber hauling would occur in both the dry and wet seasons. During the dry season, there is no mechanism (i.e. water flowing over the road surface) for sediment transport from the roads to the streams. However, with the first seasonal rains, there could be a small pulse (up to 6 percent increase over background) of sediment at stream crossings (EA p. 91). Following the first seasonal rains, erosion rates would stabilize and sediment delivery would be indistinguishable from background levels, resulting in no measureable change to water quality (EA p. 91).

Yarding may be allowed through Riparian Reserves where necessary, subject to pre-designation of the yarding corridors and authorization by the contract administrator, potentially causing localized soil disturbance and erosion. However, the PDF requiring full suspension, where practical, when yarding across streams, would reduce the risk of sedimentation arising from streambank and channel disturbance (EA pp. 26, 92).

Noxious Weeds

Harvest operations (e.g. ground-based yarding, cable yarding corridors, road maintenance/renovation, road construction, road decommissioning, and pile burning) would create areas of exposed mineral soil, which would provide conditions suitable for seed germination and seedling establishment of noxious weeds (Gray 2005, Sutherland and Nelson 2010). New weed infestations on exposed mineral soil would be expected as long as openings in the canopy and available seed sources are present. This would be kept to a minimum by following the PDFs; however, this would not change the existing noxious weed seedbed (EA p. 100).

A flush of noxious weeds would be expected in the first five years following the Proposed Action, as the existing seed bed is stimulated to germinate and propagules from surrounding weed sites become established within the areas of soil disturbance (EA p. 101).

Because trees are proposed to be planted within harvested units (EA p. 20), thistle species and St. Johnswort would be expected to decline after 5-10 years, when the tree canopy prevents light from reaching the ground (Gray 2005, Parendes and Jones 2000). Himalayan blackberry would decline slowly after 15-20 years post-tree planting, with lower light levels (Caplan and Yeakley 2006, Gray 2005, McAlpine and Drake 2002, Zouhar 2005). Germination of new Scotch broom plants would diminish as canopy cover increases; however, mature plants would persist and live for up to 30 years (Zouhar 2005) (EA p. 101).

Soils

The total acres of detrimental soil disturbance from timber yarding, machine pile burning, and road construction represent up to 40 acres or eight percent of the project area for Option A and 32 acres or six percent of the project area for Option B. This represents a minor portion of the treated acres and would not result in loss of stand productivity. According to guidance in the RMP, the effects from this project are within the 10 percent standard for soil disturbance (EA p. 107).

Option A for road surfacing (EA pp. 20-23) proposes 7 miles of native surface roads, whereas Option B proposes rocked roads only. Native surface roads may be subject to subsoiling as a decommissioning method, which would ameliorate some of the soil compaction and allow for vegetation to occupy the area sooner than decommissioned rocked roads (EA p. 109). Rocking roads would reduce the opportunity for amelioration of soil compaction. Decommissioning rocked roads would include waterbarring and blocking (EA p. 109).

The EA discusses an increase in landslide risk from low to moderate for all units. This increase in risk would be confined to areas of steep slopes, which are present on a small percentage of the total unit acres. The increase in landslide risk is expected to be greatest for 10 years after regeneration harvest. If an extreme storm would occur during the early-successional period, the susceptibility of landsliding would be increased compared to forest where regeneration harvest did not occur (EA p. 110). High landslide probability areas in Units 24-4-13E and 25-4-17A would include areas of retention trees which would help moderate the impacts to slope stability. Additionally, proposed harvest units were field reviewed by the project soil scientist and areas of existing instability would be excluded from timber harvesting (EA p. 110).

Best Management Practices (BMPs) were designed to reduce the likelihood of harvest and road activities contributing to landslides. These include practices that direct road runoff away from unstable fill slopes, avoid road building on unstable areas, stabilize bare soil as a result of road construction, and control runoff on skid trails and yarding corridors with waterbars (EA p. 111; ROD/RMP pp.130-132).

Fire and Fuels Management

In the Fire and Fuels Management analysis (EA pp. 112-119), fuel models were used to predict expected flame lengths under low and high fire danger weather conditions using the BehavePlus Fire Modeling System (Andrews et al. 2008). Flame length was used as a proxy for fire risk because it corresponds to fire line intensity and therefore, fire suppression response (EA p. 112; Table 3-21; Andrews and Rothermel 1982). Fire risk would remain “low” under low fire danger weather for Alternative Two (post-harvest after slash piles are burned), as compared to Alternative One (EA p. 117; Table 3-23). Fire risk would increase from “low” to “moderate” under high fire danger weather for Alternative Two (post-harvest after slash piles are burned), as compared to Alternative One (EA p. 117; Table 3-23).

2. *The degree to which the proposed action affects public health or safety. - 40 CFR 1508.27(b) (2)*

The proposed action is a timber management project that is located in a rural setting, removed from urban and metropolitan areas, on a landscape of Federal and private lands that are principally managed for timber production, and as such would not be expected to have any demonstrable effects on public health and safety.

The Back in Black project area is entirely within the Douglas County, Oregon Wildland Urban Interface (WUI) as identified in the Douglas County Community Wildfire Protection Plans (2013) (EA p. 113). This area has moderate public use, even though access to most of the project area is restricted by locked gates (EA p. 113).

Under Alternative Two, concentrated fuel loads would be machine-piled and burned. Small fuels generated by regeneration harvest would be machine piled in areas identified for ground-based yarding in Option A, independent of which yarding method is chosen. In order to reduce activity fuel accumulations along select property lines, in Unit 24-3-17D and Unit 25-4-17A, small fuels would be hand or machine piled. Small fuels would also be hand or machine piled within 50 feet of permanent roads and haul routes, where practicable (EA p. 23).

Treatment of activity fuels along roadways would reduce the risk of roadside ignition and increase the viability of those roadways as fuel breaks in the event of a wildfire. Treatment of areas identified for possible ground-based harvest, regardless of actual yarding method used, in the interior of units would reduce the amount of and create gaps in the slash, altering the fuel model, which in turn reduces the fire behavior and corresponding fire risk (EA p. 117, Table 3-23). Fire risk would reduce from moderate/extreme to low/moderate. Breaking up the continuity of the fuels would make fires less likely to carry through units and increase the number of possible fire line locations (EA p. 116).

The Oregon Department of Forestry – Smoke Management Plan (Oregon SMP 2008) identifies areas sensitive to smoke where impacts should be avoided. The Smoke Sensitive Receptor Areas (SSRA) in proximity to the analysis area are the cities of Roseburg, Cottage Grove, Oakridge, and Eugene (EA p. 114).

With the application of Oregon smoke management restrictions and PDFs, prescribed burning would have no cumulative or long-term effects to local air quality. All burning of piles would be conducted under the requirements of the Oregon Smoke Management Plan. The fuels management PDFs would minimize the risk of smoke settling into drainages or along roadways and persisting for an extended period of time (EA p. 29). Potential impacts to air quality in areas within 0.25 to 1.0 mile of units would persist for one to three days and would be characterized by some haziness (EA p. 117).

3 *Unique characteristics such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. - 40 CFR 1508.27(b) (3)*

Cultural resource inventories within proposed harvest units and road construction were completed in 2015. These efforts are documented in CRS# SW1501, SW1502, and SW1503. The most recent surveys did not locate any significant cultural resources. One previously identified cultural resource, 35DO859, is a prehistoric archaeological site. The site was tested and determined to be not eligible for listing on the National Register of Historic Places, and will not be managed for conservation (EA p. 37). Cultural resources are discussed further in consideration 8.

As discussed in the EA (p. 36), the project area does not contain any Areas of Critical Environmental Concern, Research Natural Areas, prime or unique farmlands, parklands, Wilderness, or Wild and Scenic Rivers. Any wetlands that may be present would be protected by establishment of Riparian Reserves, excusing the area from the proposed action. No ecologically critical areas exist in proximity to any proposed harvest units.

4 *The degree to which the effects on the quality of the human environment are likely to be highly controversial. - 40 CFR 1508.27(b) (4)*

The environmental effects of the project are within the scope of those considered in the 1994 Roseburg District PRMP/EIS. The BLM has conducted timber management across western Oregon for decades. Effects are expected to be consistent with those of the published literature cited in the EA, and are not expected to be highly controversial, in a scientific sense.

The public has had the opportunity to comment on this project through informal scoping and will be given a 30-day opportunity to review and comment on the EA.

A notice of project initiation was published in the Spring 2014 Roseburg District Quarterly Planning Update, informing the general public of the nature of the proposed action. Letters were sent to landowners with property adjacent to BLM-administered lands where timber harvest is proposed, those whose property lies beside or astride identified haul routes, and those with registered surface water rights for domestic use located within one mile downstream of any proposed units. They were encouraged to share any concerns or special knowledge of the project area that they may have (EA pp. 3-4).

Letters were also sent to the Confederated Tribes of Grand Ronde, Confederated Tribes of Siletz, and Cow Creek Band of Umpqua Tribe of Indians requesting identification of any special interest they might have in the lands in question. No responses were received (EA p. 3).

Informal scoping comments were received from two organizations and were addressed as warranted in the analysis (EA pp. 3-9). None of the comments identified any aspects of the proposed action that were highly controversial, in a scientific sense.

5. *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. - 40 CFR 1508.27(b) (5)*

This proposed project is not unique as the BLM has been conducting timber management for more than 60 years. When professional experience is paired with the substantial body of literature on the subject, there is little uncertainty regarding the effects. The environmental consequences of all of the alternatives are fully analyzed in Chapter Three of the EA (pp. 39-124). The actions analyzed in Alternative Two are routine in nature, which includes project design features (PDFs), best management practices (BMPs), and seasonal restrictions designed to address the potential effects identified in the analysis (EA pp. 25-34). These effects are well known and do not involve unique or unknown risk to the human environment.

Climate change and greenhouse gas emissions have been identified as an emerging resource concern by the Secretary of the Interior (Secretarial Order No. 3226; January 16, 2009), the OR/WA BLM State Director (IM-OR-2010-012, January 13, 2010), and by the general public through comments on recent project analyses.

The U.S. Geological Survey, in a May 14, 2008 memorandum (USDI USGS 2008) to the U.S. Fish and Wildlife Service, summarized the latest science on greenhouse gas emissions and concluded that it is currently beyond the scope of existing science to identify a specific source of greenhouse gas emissions or sequestration and designate it as the cause of specific climate impacts at a specific location (EA p. 120).

The 2016 FEIS (pp. 165-211), incorporated by reference, describes current information on predicted changes in carbon storage, greenhouse gas emissions, regional climate, forest vegetation and wildlife habitat. Under the current state of the science, the BLM cannot identify the impacts of greenhouse gas emissions from any one project or program, or from its activities in western Oregon on global, national, or even local climate (USDI BLM FEIS 2016). However, the amount of carbon released or stored under the alternatives analyzed can be estimated (EA p. 120).

As described (EA pp. 122-123), Alternative Two would result in the direct release of carbon. The amounts of carbon release would be undetectable, though, at 0.0003 percent of annual emissions in the United States, and 0.00004 percent of annual global emissions (EA p. 122).

6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. - 40 CFR 1508.27(b) (6)*

The proposed action was subject to a rigorous analysis of potential environmental consequences. The potential future preparation, auction and award of timber sale contracts associated with the preferred alternative would not set a precedent or a decision in principle about future actions or considerations, as any new proposals for timber management would be subject to their own site-specific evaluation and analysis.

7. *Whether the action is related to other actions with individually insignificant impacts but cumulatively significant impacts. - 40 CFR 1508.27(b) (7)*

The interdisciplinary team considered the proposed action in the context of past, present, and reasonably foreseeable actions. As documented in the EA, no cumulatively significant effects to the following resources are predicted from implementation of the preferred alternative: Forest Vegetation (EA pp. 50-51); Wildlife (EA pp. 80-84); Water Resources (EA pp. 97-98); Noxious Weeds (EA p. 102); Soils (p. 111); Fire and Fuels Management and Air Quality (EA pp. 117-119); and Carbon Storage and Release (EA p. 123).

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Historic Register or may cause loss or destruction of significant scientific, cultural, or historical resources. - 40 CFR 1508.27(b) (8)*

As discussed above, cultural resource inventories within proposed harvest units and proposed road construction were completed in 2015. These efforts are documented in CRS# SW1501, SW1502, and SW1503. The most recent surveys did not locate any significant cultural resources. One previously identified cultural resource, 35DO859, is a prehistoric archaeological site. The site was tested and determined to be not eligible for listing on the National Register of Historic Places, and will not be managed for conservation. Any cultural resources that are located during project implementation would be managed either through avoidance or mitigation. In this way, no historic properties would be impacted, and the BLM will meet its Section 106 responsibilities under the guidance of the 2012 National Programmatic Agreement and 2015 State Protocol (EA p. 37).

9. *The degree to which an action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973. - 40 CFR 1508.27(b) (9)*

Botany

Surveys for Federally listed Threatened or Endangered species and Sensitive botanical species in the Back in Black project area were completed in 2014. During these surveys, no populations of any federally listed Threatened or Endangered, or Bureau Sensitive botanical species were identified (EA p. 36).

Wildlife

In accordance with the Endangered Species Act, this project is in compliance with the Biological Opinion on the Roseburg District of the Bureau of Land Management's 2016-2017 Batch of Projects (2016-2017 Batch BO, Tails# 01EOFW00-2016-F-0065). The U.S. Fish and Wildlife Service stated that actions in the 2016-2017 Batch BO are not likely to jeopardize the northern spotted owl (2016-2017 Batch BO, p. 1). The harvest units are not located in critical habitat for the northern spotted owl and therefore, there are no concerns for critical habitat (EA p. 62). The project is outside of the distribution range of the marbled murrelet (*Brachyramphus marmoratus*) and therefore, the Back in Black project would have no effect to the species or its critical habitat (EA p. 52).

Northern Spotted Owl

As described in the EA (p. 74), no effects from potential disturbance to nesting northern spotted owls or their young would be anticipated because seasonal restrictions would be applied where activities would occur (EA pp. 30-31). Effects would be solely associated with modification or removal of habitat. Effects to the northern spotted owl associated with modification or removal of dispersal habitat under Alternative Two would be consistent with those described in the Roseburg District Proposed Resource Management Plan/Environmental Impact Statement (Chapter 4, pp. 62-65).

The proposed project would affect 14 acres (0.0003 percent) of the 4,483,985 acres of suitable habitat on federally-administered lands within the Western Oregon Cascades physiographic province (USDI BLM 2016, p. 1772). While removal of suitable habitat would be locally impactful, it is anticipated that modification of this habitat would not appreciably alter the baseline condition or the capability to support breeding northern spotted owls in the physiographic province (EA p. 73).

Regeneration harvest would remove 516 acres of dispersal habitat under Alternative Two (EA p. 61, 71; Table 3-12), decreasing the amount of dispersal habitat on federal lands by 21 percent within the analysis areas. This loss of dispersal habitat would persist for approximately 40 years. In approximately 40 years, treated areas would function as dispersal habitat when canopy cover reaches 40 percent (EA pp. 49, 71; Tables 3-6 and 3-7). Until the treated stands become dispersal habitat, there would be a reduction of habitat available to use by dispersing northern spotted owls within the analysis area (EA p. 71).

The removal of 12 acres of suitable habitat within the Gossett Creek home range would reduce the amount of suitable habitat by five percent, resulting in 251 acres of suitable habitat available at post-harvest within the home range. However, because this site is currently well below the suitable habitat threshold, the removal of five percent of suitable habitat would not change the habitat-fitness of the home range (EA p. 73).

The removal of 6-60 percent of dispersal habitat (242 acres) would not change habitat-fitness within the habitat-deficit home ranges. Because the Gossett Creek and Mill Creek MS sites are unoccupied by northern spotted owls, harvest activities within these home ranges would not cause disruption to northern spotted owl life history behaviors (EA p. 73). The proposed harvest of the Sunset View site would occur beyond the core-use area where northern spotted owls spend a disproportionate amount of time for breeding, feeding and sheltering activities. Therefore, the FWS determined the proposed action would not lead to disruption in northern spotted owl breeding, feeding or sheltering activities. Analysis shows habitat connectivity should be sufficient for northern spotted owl dispersal and associated foraging. For these reasons, collectively, disruption of northern spotted owl life history behavior is not anticipated (EA p. 73; USDI FWS 2016, p. 94).

Harvest would result in the removal of dispersal habitat within the core area of one northern spotted owl site (Gossett Creek). Although harvest activities would decrease the amount of dispersal habitat within the core area, disruption to northern spotted owl life history behaviors is not expected because the site is unoccupied and currently below the suitable habitat threshold of 50 percent (EA p. 74, Table 3-14).

No harvest would occur within a northern spotted owl nest patch (EA p. 62).

There would be no regeneration harvest within northern spotted owl critical habitat under the proposed action (EA p. 62).

Proposed units do not overlap any KOACs; therefore, there would be no direct effects to designated KOACs as a result of the proposed Back in Black project (EA p. 74).

There is no data indicating a relationship between forest treatments or lack of treatments and an increase or decrease in the distribution of the barred owl. Independent of the proposed action, the barred owl would remain in the project and is expected to continue increasing its distribution and numbers, displacing northern spotted owls (EA p. 65).

Fish Species

Alternative Two would follow all provisions of the Clean Water Act (40 CFR Subchapter D) and Department of Environmental Quality's (DEQ's) provisions for maintenance of water quality standards. The actions under Alternative Two would have no effect to the federally threatened Oregon Coast coho salmon (*Oncorhynchus kisutch*), coho Critical Habitat, or listed fish habitat (LFH).

Timber harvest would not occur within Riparian Reserves. All of the units, except Unit 24-4-13E, are on ridge tops away from fish-bearing streams. Unit 24-4-13E is adjacent to a fish-bearing stream, Gossett Creek, and this stream would have a Riparian Reserve of 360 feet (EA p. 25). Hard buffers wider than 33 feet have been shown to be effective at intercepting and filtering any sediment from upslope sites (Rashin et al. 2006). The Riparian Reserves in this project are greater than tenfold the width of the buffers in the Rashin study, and would be effective at filtering any project derived sediment before it reaches fish-bearing streams (EA pp. 37-38). Additionally Riparian Reserves of 360 feet are more than adequate to protect stream shade and water temperature (EA pp. 37, 93).

All of the haul routes, except the haul route discussed below, were analyzed under the Calapooya Creek Harvest Plan EA (2015, DOI-BLM-OR-R040-2013-0009-EA). Haul routes for the Back in Black project cross fish-bearing streams six times. Oregon Coast coho salmon (*Oncorhynchus kisutch*) are present along small portions of the haul route (Calapooya Creek Harvest Plan EA, Appendix H. Figures 3 and 7). The Calapooya Creek analysis found that a combination of well vegetated ditches, a durable road surface, and PDFs, which include suspending haul during wet weather if road conditions deteriorate, utilizing sediment reducing measures (hay bales, silt fences, etc.) near stream crossings, and restricting haul on native surfaces to the dry season, would prevent road sediment from entering fish-bearing streams (Calapooya Creek Harvest Plan EA, 2015, pp. 101-102).

The haul routes for Unit 25-4-17A were not analyzed under the Calapooya Creek Harvest Plan EA. The haul routes only crosses one fish-bearing stream (cutthroat trout) and is not adjacent to Oregon Coast coho salmon-bearing streams. The haul routes for this unit have all the same haul route PDFs discussed above in the Calapooya Creek Harvest Plan EA (vegetated ditches, durable rock surface, and sediment reducing PDFs; EA pp. 27-29) are included in this EA. All of the other roads being used for haul routes within the project area that were not analyzed under the Calapooya EA are on ridge tops, away from any fish-bearing streams. By not harvesting within Riparian Reserves and avoiding any impacts from timber haul, fish populations within the Back in Black project area would be unaffected by this project (EA p. 37).

10. *Whether the action threatens a violation of Federal, State, or local law or requirement imposed for the protection of the environment. - 40 CFR 1508.27(b) (10)*

The proposed action was designed in conformance with management direction from the Roseburg District Record of Decision and Resource Management Plan (ROD/RMP), which itself is in conformance with all applicable laws and regulations. Furthermore, the design features described within the EA ensure that the proposed action complies with all applicable laws (ROD/RMP p. 5).

Environmental Justice

With respect to environmental justice, the proposed action would be consistent with Executive Order 12898 which addresses Environmental Justice (EA p. 36). No potential impacts to low-income or minority populations have been identified by the BLM internally or through public involvement. Employment associated with the sales would involve local contractors who engage in similar work throughout Douglas County.

Native American Religious or Ceremonial Sites

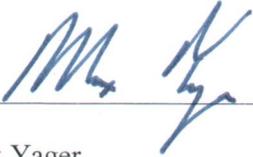
Correspondence with local Native American tribal governments has not identified any known unique or special resources in the project areas which provide religious, employment, subsistence or recreation opportunities (EA p. 36).

Noxious Weeds and Invasive Non-native Plants

As discussed in the EA (pp. 33, 99-102), implementation of the Roseburg District Integrated Weed Management Program, in association with project design and contract provisions, would minimize the risk of introduction or spread of noxious weeds in association with harvest operations (e.g. ground-based yarding, cable yarding corridors, road maintenance/renovation, road construction, road decommissioning and pile burning). Measures would include manual, mechanical, or chemical treatments to manage invasive plant infestations, mulching disturbed areas and seeding with native grasses to discourage establishment of new weed populations, and pressure washing or steam cleaning logging and road construction equipment prior to entering BLM-administered lands to avoid introducing weeds from outside the project area (EA p. 33). These actions would be consistent with the requirements of the Lacey Act; the Federal Noxious Weed Act of 1974, as amended; and Executive Order 13112, Invasive Species.

Finding

Based on the analysis of potential environmental impacts contained in the EA, I have determined that Alternative Two would not have any significant impact on the human environment within the meaning of Section 102(2) (c) of the National Environmental Policy Act of 1969, and an environmental impact statement is not required. I have further determined that Alternative Two conforms to management direction from the Record of Decision and Resource Management Plan (ROD/RMP) for the Roseburg District, approved by the Oregon/Washington State Director on June 2, 1995.



Max Yager

Field Manager

Swiftwater Field Office

OCT. 11th, 2016

Date