IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

BARK,

Plaintiff,

v.

LISA NORTHROP, Forest Supervisor,
of the Mt. Hood National Forest, and
U.S. FOREST SERVICE, a federal agency,

Defendants,

and

INTERFOR, U.S., Inc.,

Defendant-Intervenor.

No. 3:13-cv-01267-HZ

OPINION & ORDER

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HERNÁNDEZ, District Judge:

Plaintiff Bark, a non-profit organization, brings this action against Defendants U.S. Forest Service and Lisa Northrop, forest supervisor of the Mt. Hood National Forest (collectively "Forest Service"). Plaintiff claims that the Forest Service violated the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA) in approving the Jazz Thinning project in the Mt. Hood National Forest. Interfor, U.S., Inc. has intervened as a defendant.

Plaintiff claims that the Forest Service's environmental assessment (EA) violates NFMA. Specifically, Plaintiff contends that the EA improperly exempts compliance with soil protection standards, does not comply with Aquatic Conservation Strategy (ACS) objectives, and does not comply with the Best Management Practices (BMP) of the Mt. Hood Forest Plan. Plaintiff

further claims that the EA violates NEPA because the EA does not adequately evaluate the impacts of rebuilding decommissioned roads, soil productivity, or the spread of invasive species. Additionally, Plaintiff asserts that the Forest Service violated NEPA by failing to consider a sufficient number of alternatives and failing to prepare and environmental impact statement (EIS).

Plaintiff moved for summary judgment, and the Forest Service and Interfor cross-moved. Oral argument on the motions was held on March 7, 2014. In reviewing the Forest Service's actions, I find that the Forest Service has not violated NFMA or NEPA. Therefore, Plaintiff's motion [51] is denied, Defendants' motion [57] is granted, and Defendant-Intervenor's motion [60] is granted.

BACKGROUND

In March 2013, the Forest Service issued a Decision Notice and a Finding of No Significant Impact (FONSI) for the Jazz Thinning project. Revised Admin. R. (AR) 21246-21264.[1] The Jazz project area is located in the Collawash Watershed, a tributary of the Clackamas River, in the Mt. Hood National Forest. AR 20951, 21246. The Forest Service proposed thinning approximately 2,053 acres of plantations that are between 30 and 60 years old.[2] AR 20967. The average tree size in the plantations is one foot in diameter. AR 21246. These plantations primarily originated after clearcut harvesting. AR 21247. The trees were planted closely together with the understanding that over time, density management practices would give the trees sufficient space to grow. AR 21248.

[1] In August 2012, the Forest Service issued a Decision Notice, but withdrew the decision because some issues warranted further investigation. AR 21246.

[2] The thinning would actually affect 1,588 acres when stream protection buffers and such are taken into account. AR 20967.

The purpose of the Jazz project is to increase the health and growth of trees, enhance the diversity within the plantations, and provide timber to the local economy. AR 21001. The project involves variable density thinning methods to create skips, gaps, heavy thins, and snags. Id. The project requires repairing 67 miles of road, constructing 11.5 miles of temporary roads on existing road alignments, and construction of 0.4 miles of new temporary roads. AR 21250. The temporary roads would be decommissioned upon completion of the project. AR 21001.

In April 2013, Bark appealed the EA and Decision Notice to the Regional Forester. AR 21538. One month later, the Regional Forester affirmed the EA and Decision Notice and denied Bark's appeal. AR 21634. Bark filed this lawsuit soon after in July 2013. In September 2013, the Forest Service awarded Interfor the Bass and Drum stewardship contracts to implement the Jazz project. AR 21668-22133. Interfor was allowed to intervene in this matter as a defendant. Dec. 12, 2013 Order [45].

STANDARDS

I. Standard of Review

The parties have filed cross-motions for summary judgment under Federal Rule of Civil Procedure 56. The legal standards for summary judgment motions are "inconsistent with the standards for judicial review of agency action" under the Administrative Procedure Act (APA). Olenhouse v. Commodity Credit Corp., 42 F.3d 1560, 1579 (10th Cir. 1994). Nonetheless, the Ninth Circuit endorsed summary judgment motions as "'an appropriate mechanism for deciding the legal question of whether the agency could reasonably have found the facts as it did.'" City & County of San Francisco v. United States, 130 F.3d 873, 877 (9th Cir. 1997) (quoting Occidental Eng'g Co. v. INS, 753 F.2d 766, 770 (9th Cir. 1985)). I consider "summary judgment" to be only a convenient label for the judicial review of challenged agency actions.

This court's authority to review the actions of the Forest Service concerning the Jazz project derives from the APA, 5 U.S.C. § 706. The scope of judicial review under § 706 is narrow, and a court must uphold an agency's action unless it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Id. at § 706(2)(A).

An agency's decision is arbitrary and capricious "only if the agency relied on factors Congress did not intend it to consider, 'entirely failed to consider an important aspect of the problem,' or offered an explanation 'that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'" Lands Council v. McNair, 537 F.3d 981, 987 (9th Cir. 2008) (en banc) (quoting Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1157 (9th Cir. 2006)). If the agency "considered the relevant factors and articulated a rational connection between the facts found and the choice made," the court must uphold the agency's action. Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 105 (1983); see also City of Sausalito v. O'Neill, 386 F.3d 1186, 1206 (9th Cir. 2004).

Moreover, the court generally must be "at its most deferential" when reviewing scientific judgments and technical analyses within the agency's expertise. See Balt. Gas & Elec. Co., 462 U.S. at 103. It should not "act as a panel of scientists that instructs the [agency]…, chooses among scientific studies…, and orders the agency to explain every possible scientific uncertainty." Lands Council, 537 F.3d at 988. The court should also "conduct a 'particularly deferential review' of an 'agency's predictive judgments about areas that are within the agency's field of discretion and expertise…as long as they are reasonable.'" Id. at 993 (quoting Earthlink, Inc. v. FCC, 373 U.S. App. D.C. 202, 462 F.3d 1, 12 (D.C. Cir. 2006)). And "[w]hen specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of

its own qualified experts even if, as an original matter, a court might find contrary views more persuasive." Id. at 1000 (quoting Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989)).

II. Substantive Standards

The governing law in this case includes the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4321-4370f, and the National Forest Management Act (NFMA), 16 U.S.C. §§ 1600 et seq.

A. National Environmental Policy Act

NEPA has two principal aims. Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, 462 U.S. 87, 97, 103 S. Ct. 2246, 76 L. Ed. 2d 437 (1983). First, NEPA requires government agencies to "consider every significant aspect of the environmental impact of a proposed action." Id. (internal quotation marks omitted). "Second, NEPA mandates that government agencies inform the public of the potential environmental impacts of proposed actions and explain how their decisions address those impacts." Citizens Committee to Save Our Canyons v. United States Forest Service, 297 F.3d 1012, 1021 (10th Cir. 2002).

"NEPA is a procedural statute that does not 'mandate particular results but simply provides the necessary process to insure that federal agencies take a hard look at the environmental consequences of their actions.'" High Sierra Hikers Ass'n v. Blackwell, 390 F.3d 630, 639-40 (9th Cir. 2004) (internal citation omitted). To comply with NEPA, federal agencies must prepare an Environmental Impact Statement (EIS) for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C).

A federal agency initially "may prepare an Environmental Assessment (EA) to determine whether the environmental impact of the proposed action is significant enough to warrant an

EIS." High Sierra Hikers Ass'n, 390 F.3d at 630, 639-40. An EA is "a concise public document" that should:

> (1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact;
> (2) Aid an agency's compliance with [NEPA] when no environmental impact statement is necessary;
> (3) Facilitate preparation of [an EIS] when one is necessary.

40 C.F.R. § 1508.9(a)(1-3).

"An EA must include 'brief discussions' of the need for the [federal action], of reasonable alternatives, and of the anticipated environmental impacts." Hapner v. Tidwell, 621 F.3d 1239, 1244 (9th Cir. 2010). See also 40 C.F.R. § 1508.9(b). An agency must then prepare an EIS "if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor." Cal. Trout v. F.E.R.C., 572 F.3d 1003, 1016 (9th Cir. 2009). An EA need not meet all the requirements of an EIS, but "it must be 'sufficient to establish the reasonableness of th[e] decision' not to prepare an EIS." Ctr. for Biological Diversity v. Nat'l Hwy Traffic Safety Admin., 538 F.3d 1172, 1215 (9th Cir. 2008) (internal citations omitted).

B. National Forest Management Act

NFMA requires the Forest Service to create a comprehensive Land Resources Management Plan, also known as a Forest Plan, for each national forest. Lands Council, 395 F.3d at 1033. NFMA prohibits any site-specific activities that are inconsistent with the Forest Plan. Id. Unlike NEPA, which is purely procedural, NFMA also imposes substantive constraints on management of forest lands, such as a requirement to insure biological diversity. Native Ecosystems Council, 304 F.3d at 898.

The NFMA and its implementing regulations subject forest management to two stages of administrative decision making. At the first stage, the Forest Service is required to develop a Land and Resource Management Plan ("LRMP" or "Forest Plan"), which sets forth a broad, long-term planning document for an entire national forest. At the second stage, the Forest Service must approve or deny individual, site-specific projects. These individual projects must be consistent with the Forest Plan. Inland Empire Pub. Lands Council v. U.S. Forest Serv., 88 F.3d 754, 757 (9th Cir. 1996).

DISCUSSION

Plaintiff raises several challenges under both NFMA and NEPA.

I. NFMA

There are two forest plans involved in this case—the Northwest Forest Plan and the Mt. Hood Forest Plan (aka the Forest Plan). AR 20960. Plaintiff raises three NFMA-based arguments concerning the Forest Service's EA and Decision Notice for the Jazz project. Plaintiff argues that the Decision Notice does not comply with (1) the Mt. Hood Forest Plan's soil protection standards, (2) the Northwest Forest Plan's Aquatic Conservation Strategy (ACS) objectives, and (3) the Best Management Practices (BMP) of the Mt. Hood Forest Plan.

A. Soil Protection Standards

The Forest Service approved exceptions to several Forest Plan standards and guidelines. AR 21262. Plaintiff argues that the exceptions are not supported by facts, and therefore are arbitrary and capricious. Pl.'s MSJ 10. The exceptions concern two different subjects—low risk earthflows and soil productivity.

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1. Low Risk Earthflows

With respect to low risk earthflows, there is an overall standard, FW-17, and four sub-standards, FW-18 through 20. The overall standard states that "possibilities of reactivating or accelerating movement shall be minimized." AR 1455. The Forest Service approved exceptions to sub-standards FW-18 and FW-20. AR 21262.

> [FW-18] The combined cumulated detrimental impacts, occurring from both past and planned activities, of detrimental soil compaction, puddling, displacement, erosion or severely burned soil should not exceed 8 percent of the activity area.
>
> [FW-20] Ground machine yarding of logs should not occur.

AR 1455. Plaintiff challenges these two exceptions, arguing that the Forest Service "does not provide adequate information that ensures management activities on designated earthflows will not reactivate or accelerate movement." Pl.'s MSJ 11. Plaintiff further argues that the EA does address "the effects of road building on earthflow stability." Id. at 12.

Plaintiff's concern over reactivating or accelerating movement of earthflows and the effects of road building has been adequately addressed by the EA. In the EA, an analysis was performed to study the project's impact on the hydrologic recovery of earthflows. AR 21081-85. The Aggregate Recovery Percentage (ARP) Index was used to determine compliance with Forest Plan standards and guidelines. AR 21082. The Jazz project would affect parts of 12 different earthflows. AR 21083. The current conditions of these 12 earthflows are designated as hydrologically recovered.[3] Id. At the recommendation of a slope stability specialist, all unstable and potentially unstable areas were examined and eliminated from the project. AR 21080, 21085. The Forest Service predicts that the project is not likely to cause the acceleration of movement of earthflows. AR 21083. Additionally, the slope stability specialist found that the

[3] With the exception of the one earthflow with an ARP value of 85.1%, the other 11 earthflows have values greater than 94%. AR 21083. With the proposed project, changes in ARP values range from 0.2% to 4.3%. Id. at 21084.

construction of new temporary roads "would have no perceptible effect on slope stability." AR 21081. The new and existing roads would be decommissioned after the project, resulting in a net beneficial effect on slope stability. Id.

Plaintiff further argues that exceptions to sub-standards FW-18 and 20 should not have been granted because soil compaction rates in the project area "already exceed the 8% maximum compaction allowed by the Forest Plan, with compaction rates from 9–25% throughout the project area. Pl.'s MSJ 11. The FW-18 sub-standard states that soil compaction "should not exceed 8 percent[.]" I disagree with Plaintiff that the 8% may never be exceeded. Unlike the overall standard FW-17 which uses "shall," FW-18 and FW-20 use the more permissive "should" to describe prohibitions. Additionally, according to the Forest Plan, "case by case exceptions [to "should" standards] are acceptable if identified during interdisciplinary project planning environmental analyses" and the exceptions are "documented in environmental analysis…public documents." AR 1452.

Current compaction percentages already range 9%–25% due to past actions. AR 21095; 19697 (Final Soil Report describing that "timber harvest and road construction that has occurred since the 1950s has created soil impacts that remain today."). The cumulative effect of the project would slightly increase the soil compaction range to 9.5%–25%, compared to the current 9–25%. Id. The Forest Service explained that helicopter logging was considered, but not feasible due to the small benefit but high cost, and that the project allows opportunity for restoration. AR 21262-63. Rehabilitation on skid trails was considered, but the Forest Service's soil scientist and silviculturist did not recommend such action for fear of damaging tree roots. AR 21263. Restoration of compacted roads would also keep the soil compaction to a minimum. AR 21095-96. Despite the slight increase in soil compaction, the stands are predicted to

continue to grow well. AR 21101. The Forest Service's exceptions to sub-standards FW-18 and 20 were documented and explained in the EA, and thus were not arbitrary and capricious.

2. Soil Productivity

Plaintiff challenges the Forest Service's approval of exceptions to standards FW-22 and FW-28 regarding soil productivity.

> [FW-22] The combined cumulated detrimental impacts, occurring from both past and planned activities, of detrimental soil compaction, puddling, displacement, erosion or severely burned soil should not exceed 15 percent of the activity area.
>
> [FW-28] Following the completion of project activities, if more than 15 percent of the activity area remains in an impaired (e.g., compacted, puddled, displaced or eroded) soil condition, rehabilitative techniques should be used to restore the soil resource to a level of less than 15 percent impaired.

AR 1456-57. Plaintiff is concerned that these exceptions "will contribute to the existing compaction problem" and that the project fails to include any "post-project soil rehabilitation." Pl.'s MSJ 12.

Regarding the FW-22 soil compaction standard, the cumulative detrimental soil condition of many of the units in the Jazz project already currently exceeds 15% because of the original clear-cut decades ago. AR 21099-100. There is no dispute that the project is anticipated to increase soil compaction by a small percentage. However, examination of the stands shows that they are growing well, and are expected to continue growing well after the thinning. AR 21099. As explained earlier, exceptions to "should" standards are allowed if the exception is identified and explained. The Forest Service sufficiently explained its reasoning for allowing the exception to FW-22.

With respect to the FW-28 rehabilitation standard, contrary to Plaintiff's assertion, rehabilitation of temporary roads and landings used by the contractor are required by contract in very specific terms. AR 21731, 21914. The following clause appears in both contracts.

> Obliteration: Roadbed and/or landing will first be subsoiled using winged subsoiler if so required by contract K-G.6.O#. If subsoiling is not required, scarification may be done with log loader or other Forest Service approved method. After or during scarification process, fill material will be returned to cut slope, and all excavated soil returned to original locations as much as feasible. Original land profiles will be reestablished to the maximum extent possible. All stumps slash and vegetative debris from construction will be returned to the obliterated road and/or landing surface. Special attention will be given road entrances to prevent any further use of road. Extra debris, imported stumps, earth berm, and/or slash piles as approved by Forest Service, will be used to effectively prevent any future use of road. Following obliteration, all areas of exposed soil not effectively covered with slash and debris, will be seeded, fertilized, and mulched as required by K-G.6.O#.

Id. Plaintiff's argument that post-project rehabilitation will not occur lacks merit.

Finally, Plaintiff argues that the Forest Service's use of "boilerplate" language to approve the exceptions shows a lack of "site-specific determinations[.]" Pl.'s MSJ 13. Even if the Forest Service had used the same language in approving the exceptions, as explained above, the Forest Service provided adequate reasoning to justify the exceptions for the Jazz project.

B. Aquatic Conservation Strategy Objectives

Plaintiff argues that the Jazz project is not needed to comply with the ACS Objectives. Pl.'s MSJ, 14. And even if thinning is necessary, the project does not comply with ACS Objectives Nos. 5 and 8. Pl.'s MSJ 16, 18.

"The Aquatic Conservation Strategy was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands." AR 4145. For lands within range of the spotted owl, the Forest Service will manage the land to achieve the ACS Objectives. AR 4147. "Complying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian-dependent resources to maintain the existing condition or implement actions to restore conditions. The baseline from which to assess maintaining or restoring the condition is developed through a watershed analysis." AR 4146. In

order to find that the objective is met, the analysis must "include a description of the existing condition, a description of the range of natural variability of the important physical and biological components of a given watershed, and how the proposed project or management action maintains the existing condition or moves it within the range of natural variability." AR 4146.

There are nine ACS Objectives. AR 4147. These objectives are:

> 1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features.
> 2. Maintain and restore spatial and temporal connectivity within and between watersheds.
> 3. Maintain and restore the physical integrity of the aquatic system.
> 4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems.
> 5. Maintain and restore the sediment regime under which aquatic ecosystems evolved.
> 6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats.
> 7. Maintain and restore the timing, variability, and duration of floodplain inundation.
> 8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands.
> 9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

Id.

1. Thinning in Riparian Reserves

Of the 2,053 acres involved in the Jazz project, 734 acres are classified as Riparian Reserve. AR 20961. Riparian Reserves are "designed to protect the health of the aquatic system and its dependent species." Id. They are part of the ACS and are located near streams and wetlands. Id. Plaintiff argues that timber harvesting in Riparian Reserves is generally prohibited, except when needed to attain the ACS Objectives, and that the Forest Service has not shown that thinning is necessary. Pl.'s MSJ 14.

In response, the Forest Service argues that thinning is necessary because the plantations would remain overstocked, have low species diversity, and low habitat value. Def.'s MSJ 14. The stands in the plantation would maintain their mid-seral structure for many decades, and not mature into the desired late-successional characteristics. Id. Potentially, stream bank stability and the overall health of the Riparian Reserves would be jeopardized as well. Id.

In the EA, all nine ACS Objectives were examined, and the Forest Service concluded that all would be met for the project. AR 21069-76. Plaintiff asserts that the ACS Objectives could still be met without any thinning, e.g., through a no action alternative. Pl.'s MSJ 14. Plaintiff argues that in the no action alternative, more trees would naturally die and structural diversity would increase as a result. Using the Forest Vegetation Simulator (FVS) model, after 40 years, the level of dead trees over 20-inches in diameter in the Riparian Reserves would be eight per acre with thinning and 11 per acre with no action. AR 21063. Plaintiff is correct that there would be there would be more dead trees per acre, three to be exact, in the no action alternative. However, the FVS model also predicts that the average tree size would be 22.6 inches with thinning, but only 16.6 inches with no action. Id. The smaller diameter in a no action alternative is a result of trees competing with one another for sunlight, moisture, and nutrients. AR 20955. The Forest Service did not act arbitrarily or capriciously in choosing to thin the overstocked plantations.

Plaintiff also argues that the EA only includes general statements that the ACS Objectives are met. Pl.'s MSJ 15. I disagree. The EA incorporates by reference a Biological Assessment that was specifically prepared for the Jazz project. AR 16307-92. The EA merely summarizes the findings from Biological Assessment. AR 21069 ("The Fisheries Biological

Assessment which is incorporated by reference has a detailed discussion of each of these indicators."). AR 21069-70.

2. ACS Objective No. 5

Plaintiff contends that the Jazz project does not meet ACS Objective No. 5, which states: "Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing volume rate and character of sediment input storage and transport." AR 4147. First, Plaintiff argues that the EA assessed the sediment impact for only the year of construction, when the impact will continue for years. Pl.'s MSJ 17. Second, the EA failed to quantify the increases in sediment from log hauling, such that trucks on the road would increase sediment in ditch lines and streams. Id. I am not persuaded by either of Plaintiff's arguments.

First, though the increased sediment was modeled for the year of activity, the EA predicts that the impact of the sediment will likely occur over multiple years. AR 21032. "The assumption for modeling was that all roads would be used in the same year; however it is more likely that the impact would be spread out over approximately five years." Id. The Forest Service explained at the hearing that by using the one-year assumption, it wanted to assess the worst-case scenario of the project's impact. The predicted 19 tons of sediment that will result from the rebuilding of temporary roads represents a 0.01% increase to the 28,925 tons of natural sediment per year. AR 21033.

Second, in the Biological Assessment, the increase in sediment from log hauling was considered. The biologist recognized that timber and rock haul have the potential to introduce sediment in small quantities at stream crossings via drainage ditches and culverts. AR 16359. The sediment created from hauling "is expected to be minimal as the roads where there is a

potential for surface runoff are asphalt or durable crushed rock." AR 21035. Introducing restrictions for dry and wet season hauls will also minimize sediment from log hauling. AR 16360-61. The biologist concluded that although some sediment will be introduced, following the project criteria will "ensure that sediment delivery to streams will be slightly negative, but insignificant." AR 16363. In addition to the dry and wet season haul restrictions, equipment slope restrictions, erosion control methods, and stream protection buffers will also minimize the sediment impact. AR 21074.

3. ACS Objective No. 8

Plaintiff argues that the Jazz Project does not comply with ACS Objective No. 8, which states:

> Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation nutrient filtering appropriate rates of surface erosion bank erosion and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.

AR 4147. Plaintiff argues that the removal of trees, that would otherwise die naturally to create large woody debris, will retard attainment of the objective.[4] Plaintiff also points out that surveys have found that "wood quantities in most streams to be below current standards." AR 21062. In response, the Forest Service states that thinning will not occur in protection buffers along streams, so the trees within these buffers will provide a sufficient number of woody debris for the future. Def.'s MSJ 15.

As an initial matter, the trees to be thinned in the Jazz project are 11 to 16 inches in diameter. AR 21063. The Forest Plan defines large woody debris as trees of at least 24 inches in diameter. AR 1467. Currently, the trees in the project area would not become large woody

[4] Large woody debris is created naturally by landslides and by falling trees from the adjacent Riparian Reserves. AR 21062.

debris even after 40 years.[5] Regardless, the creation of wood debris would not be significantly impacted. The project mandates stream protection buffers to be either 50 or 100 feet wide.[6] AR 21062. This distance was chosen based on research that showed 90% of large woody debris originates 33 to 66 feet from streams. Id. In the Jazz project, it is predicted that streams with 100-foot buffers would maintain at least 90% of woody debris and streams with a 50-foot buffer would retain approximately 85% of woody debris. Although thinning activity in areas beyond the buffers might decrease the amount of woody debris near streams, the decrease is insignificant. AR 21063.

ACS Objective No. 8 concerns more than just the amount of large woody debris. The main focus of the objective is to "[m]aintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands[.]" AR 4147. Thinning the Riparian Reserves would "diversify and restore native tree composition including retention of minor tree species." AR 21076. I cannot say that the Forest Service acted arbitrarily or capriciously in focusing on the main objective of diversity, despite the small loss of woody debris.

C. Best Management Practices

Regulations for the Clean Water Act, 33 U.S.C. 1251 et seq., define "Best Management Practices" (BMP) as

> [m]ethods, measures or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

[5] As mentioned earlier, the FVS model predicts that in the no action alternative, the average tree size in the project area would be 16.6 inches in diameter after 40 years. AR 21063.
[6] Theses stream buffers apply to streams where Listed Fish Habitat (LFH) occurs. AR 21254. Other stream buffers, ranging from 50 to 85 feet will be applied to perennial streams where LFH does not occur. Id.

40 C.F.R. § 130.2(m). The purpose of the BMPs is to "avoid, minimize, or mitigate adverse effects to soil, water quality, and in-stream riparian resources that may result from project activities." AR 21052. Under the Forest Plan, the BMPs for "Water/Aquatic Resources" are the "primary mechanism for achieving water quality standards." AR 1763-64. The BMP envisioned that a report to monitor water quality would be produced annually. Id.

Plaintiff argues that the Forest Service has not produced an annual BMP report since 2004. Pl.'s MSJ 21. The Forest Service responds that BMPs are not monitored for every project or activity in the Forest, but that it has produced forest-wide monitoring reports through 2010. Def.'s MSJ 20-21. The Forest Service is also transitioning into a new BMP evaluation protocol to create site-specific BMPs. Id.

Plaintiff also argues that the EA fails to assess compliance with the monitoring requirements of the Forest Plan. Pl.'s MSJ 21. The EA includes a discussion on the monitoring of BMPs and a discussion of how BMPs are used to monitor compliance with the Clean Water Act. AR 20999-21000; 21052-55. Past monitoring activities on the Clackamas River Ranger District showed "85% of [BMPs] were implemented as planned and 94% of [BMPs] were effective at avoiding impacts to water quality." AR 21000; 20462-71. A total of 124 BMPs were monitored in 1998, 1999, 2000, 2001, and 2004. AR 20471. I disagree that past lapses in producing an annual BMP report can support a NFMA violation regarding the Jazz project.

II. NEPA

Plaintiff raises three violations of NEPA. First, Plaintiff claims that the EA does not adequately evaluate the impacts of rebuilding decommissioned roads, soil productivity, or the spread of invasive species. Second, Plaintiff claims that the Forest Service failed to consider a

sufficient number of alternatives. Third, Plaintiff argues that the Forest Service is required to prepare an Environmental Impact Statement (EIS).

A. EA Analysis

1. Decommissioned Roads

Plaintiff argues that the EA does not properly assess the impact of rebuilding decommissioned roads. Specifically, Plaintiff claims that the EA misleadingly describes the current state of the decommissioned roads, and therefore misleadingly downplays the negative impact of rebuilding the decommissioned roads. Pl.'s MSJ 23. Plaintiff also questions whether the Forest Service will comply with decommissioning the roads after the Jazz project concludes. Pl.'s MSJ 25. Plaintiff further contends that even after decommissioning, recovery would take too long—30 years, as predicted in the EA, AR 21084. Pl.'s MSJ 26. Plaintiff also raises the issue of sediment impacts to streams, in particular to the Farm Creek watershed. Id. at 26-27.

First, the Forest Service disagrees that the decommissioned roads have "recovered," and that rebuilding these "recovered" roads would have a larger negative impact than estimated in the EA. The Forest Service questions the expertise of Plaintiff's volunteers and the validity of their visual assessment of the roads. Def.'s MSJ 24. Road recovery is determined by factors such as compaction, top soil displacement, intense burning, and loss of organic material. AR 21093. Roads that have brush or small trees growing on them may look recovered but are not. Contrary to Plaintiff's assessment of the roads, the Forest Service's soil specialist concluded that the roads in question were not recovered. AR 19693-759 (soil report for Jazz project EA). When reviewing the scientific judgment on matters within the agency's expertise, the court defers to the agency as long as the judgment is reasonable. See Balt. Gas & Elec. Co., 462 U.S. at 103. I

am not persuaded that the soil specialist's assessment is unreasonable based solely on Plaintiff's observations.

Plaintiff next questions whether decommissioning of the road will occur post-project, and notes that even if decommissioning occurs, 30 years is too long for recovery. Neither of these assertions serves as bases for a NEPA violation.

The EA includes plans for decommissioning the temporary roads after project completion. AR 20971. Plaintiff implies that "true" decommissioning, e.g., "obliteration" of the road, will not occur. Pl.'s MSJ 26. The EA defines decommissioning work as placing berms at the entrance, using water bars, decompacting and roughening, covering exposed soil with slash, and placing debris near the entrance. AR 20971-73, 20986. The EA uses the terms "decommission" and "obliterate" to describe the same situation. AR 21030, 21731, 21914. Plaintiff seems to argue that even though the road will be decommissioned, the road may be used again in the future—which defeats the purpose of decommissioning. However, NEPA does not mandate specific actions or results. High Sierra Hikers Ass'n, 390 F.3d at 639-40. Next, Plaintiff argues that the temporary road impacts are "drastically understated" in the EA and Decision Notice and will impact the landscape for years. Pl.'s MSJ 26. Yet, Plaintiff does not explain how a 30-year recovery shows that the Forest Service did not take a "hard look" at the impact of decommissioning roads.

Next, Plaintiff again raises concerns about sediment increases, as it did in its NFMA claim. Plaintiff is particularly concerned with how the increased sediment will affect the Farm Creek-Collawash River subwatershed. Pl.'s MSJ 27. As discussed earlier, the temporary roads in the Jazz project are estimated to increase sediment delivery by 19 tons, which is a 0.01% increase over the annual 28,925 tons of natural sediment from landslides and 1,711 tons from

roads. AR 21028-33. The Farm Creek subwatershed is expected to receive 13 of the 19 tons of additional sediment from the temporary roads. AR 21032. To give some perspective, the Farm Creek subwatershed annually receives 6,874 tons of natural sediment from landslides and 503 tons of natural sediment from existing roads. Id. Although 13 tons of additional sediment is expected, this estimate will be distributed over the course of five years. AR 21032. The water specialist notes that "[u]nder natural conditions the stream channels in this area have developed to process large amounts of sediment[.]" AR 20421.

The EA also relies on a water quality specialist report to analyze the condition of the Farm Creek subwatershed. AR 20387-948. According to 12 core national indicators, the Farm Creek subwatershed is functioning properly. AR 20389. Specifically, the Farm Creek subwatershed had the following ratings: 1.7 for Aquatic Physical, 1 for Aquatic Biological, 2.1 for Terrestrial Physical, and 1 for Terrestrial Biological. The Terrestrial Physical rating can be broken down further into two indicators: roads and soils. Id. The ratings were 2.8 for roads and 1.3 for soils. Id. "The road indicator addresses changes to the hydrologic and sediment regimes due to the density, location, distribution, and maintenance of the road and trail network." AR 20389-90. A rating of 1 means "good" condition, a rating of 2 means "fair" condition, and a rating of 3 means "poor" condition. AR 20390.

The water specialist predicts the Jazz project's impact on the ARP value for the Farm Creek subwatershed to decrease only 0.5%, from 92.2% to 91.7%. The ARP value indicates the level of hydrologic recovery. AR 20414. "With the relatively high existing levels of hydrologic recovery for [the Farm Creek subwatershed]," the slight change in ARP "would not likely cause stream channel instability or increases in peak flows during rain-on-snow events." Id.

Taking into account the entire analysis by the water specialist, the EA sufficiently considered the impact of additional sediment to the Farm Creek subwatershed.

2. Soil Productivity

Plaintiff raises three arguments regarding soil productivity. First, the EA does not consider the impact of mechanical harvesters on soil compaction. Pl.'s MSJ 28. Second, the EA does not provide an estimate of the potential large, woody debris that will be lost. Id. at 28-29. And third, the BMPs and project design criteria are insufficient to mitigate impacts to the soil due to the lack of a rigorous monitoring program. Id. at 30.

First, Plaintiff is incorrect that that the effect of mechanical harvesters on soil compaction was not considered in the EA. AR 21089-90. The Forest Service's soil scientist found that harvesters would contribute an additional 2% compaction. AR 19718 (columns AW-AX, 10894).

Second, the EA explains that no large, woody debris will be removed; that during the harvest, small woody debris would be added; and that decommissioning of roads would place course woody debris on the road. AR 21097-98. As discussed earlier, in the context of ACS Objective No. 8, future woody debris will be only slightly impacted due to the project.

Third, Plaintiff's argument regarding the BMPs is an attempt to challenge the EA's finding of no significant impact (FONSI), and require the Forest Service to issue an environmental impact statement (EIS). Pl.'s MSJ 29. "An agency must prepare an EIS if substantial questions are raised as to whether a project…may cause significant degradation of some human environmental factor." Greenpeace Action v. Franklin, 14 F.3d 1324 (9th Cir. 1992).

"An agency's decision to forego issuing an EIS may be justified by the presence of mitigating measures." Wetlands Action Network v. United States Army Corps of Eng'rs, 222 F.3d 1105, 1121 (9th Cir. 2000). "In evaluating the sufficiency of mitigation measures, we focus on whether the mitigation measures constitute an adequate buffer against the negative impacts that result from the authorized activity to render such impacts so minor as to not warrant an EIS." Id. The mitigation measures must be "developed to a reasonable degree." National Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 734 (9th Cir. 2001). "A perfunctory description, or mere listing of mitigation measures, without supporting analytical data, is insufficient to support a finding of no significant impact." Id. (quotations omitted).

Here, Plaintiff argues that the Forest Service lacks an adequate monitoring program and suggests that the mitigation measures will not be effective. Pl.'s MSJ 30. The legal authorities cited by Plaintiff focus on the sufficiency of mitigation measures to determine whether an EIS is required. Plaintiff does not explain how the BMPs or project design criteria are insufficient, undeveloped, or not supported by data. Instead, Plaintiff asserts that 25% of the time, BMPs will not be implemented on the Jazz project, resulting in a far more negative impact on the project area. Pl.'s MSJ Resp. & Reply 22. Plaintiff bases its argument on the following statement in the EA:

> The [Forest Service hydrology specialist's] analysis found that the [project design criteria[7]] had a moderate to high ability to implement and moderate to high level of expected effectiveness, meaning that all practices would be implemented and effective at least 75% of the time.

AR 21054. The Forest Service responds that the 75% is a conservative estimate and that the implementation and effectiveness percentages are actually higher. A closer look at the hydrology specialist's report reveals that this is true. AR 20479-96.

[7] Project design criteria are BMPs that are more refined, as they are based on local conditions. AR 20999.

The Forest Service uses "high," "moderate," and "low" ratings to estimate its ability to implement the BMP and the effectiveness of the BMP. Regarding implementation, these ratings are defined as:

> **High**: Almost certain the BMP can be implemented as planned.
> **Moderate**: Greater than 75% certainty the BMP can be implemented as planned
> **Low**: Less than 75% certainty the BMP can be implemented as planned.

AR 20497. Regarding effectiveness of the BMP, the ratings are defined as:

> **High**: Practice is highly effective (90%) and one or more of the following types of documentation are available:
> - Literature/Research must be applicable to area
> - Administrative studies-local or within similar ecosystem
> - Experience- judgment of an expert by education and/or experience
> - Fact-obvious by reasoned logical response
>
> **Moderate**: Documentation shows that the practice is effective less than 90% of the time, but at least 75% of the time, or logic indicates that this practice is highly effective, but there is little or no documentation to back it up.
>
> **Low**: Effectiveness unknown or unverified, and there is little or no documentation or applied logic is uncertain in this case, or the practice is estimated to be less than 75% effective.

Id. Eighteen BMPs were evaluated for the Jazz project. AR 20475-78. The hydrologist specialist evaluated how the project design criteria would affect the 18 BMPs. Id. Then, using the ratings of high, moderate, and low, the hydrologist specialist estimated the Forest Service's ability to implement and the effectiveness of the 18 BMPs. AR 20479-96. The hydrologist specialist's ratings for the BMPs are summed up in the following chart.

Rating	Implementation	Effectiveness
High	11 BMPs	10 BMPs
High to Moderate	6 BMPs	8 BMPs
Moderate	1 BMP	0
Low	0	0

This chart shows that the general statement from the EA—that all BMPs would be implemented and effective 75% of the time—is correct, but belies the higher estimated success of the BMPs. I am not convinced by Plaintiff's argument that the BMPs would not be implemented or effective 25% of the time, and thus, decline to find that an EIS is required based on this argument.

3. Invasive Species

Plaintiff argues that the EA inadequately discusses the effects of invasive species. Pl.'s MSJ 31. Plaintiff also argues that the no-action alternative was not sufficiently analyzed with respect to invasive species. Id. at 32.

The EA addressed the impact of invasive species and several mitigation measures to prevent the spread of invasive species. AR 21150, 21154. The EA identified the invasive species currently in the project area that have a high risk of spreading. AR 21151-54. The EA incorporated by reference two other EISs, the 2005 Pacific Northwest Region Invasive Plant Program Preventing and Managing Invasive Plants Final EIS and the Site Specific Invasive Plant Treatments for the Mt. Hood National Forest Invasive Species EIS. AR 21150, 6954-7418, 9465-10309. Project design criteria includes minimizing soil disturbance, preventing erosion using weed-free erosion control methods, cleaning equipment, and using gravel from weed-free sources. AR 21154. These measures are considered moderately effective. Id. Other criteria such as using native plant materials and certified weed-free straw and mulch are considered highly effective. Id. Plaintiff desires a more in-depth explanation of why there is a high risk of spreading invasive species. Pl.'s MSJ 31. But "NEPA requires not that an agency engage in the most exhaustive environmental analysis theoretically possible, but that it take a 'hard look' at relevant factors." Northwest Envtl. Advocates v. Nat'l Marine Fisheries Serv., 460 F.3d 1125, 1139 (9th Cir. 2006).

Plaintiff further argues that the no-action alternative was not sufficiently considered because the EA failed to analyze the number of acres of forest that would be susceptible to invasive species. Plaintiff believes that under the no-action alternative, there would be zero risk of spreading invasive species via roads. Plaintiff is incorrect, as the risk of invasive species may exist even without the Jazz project because vehicles, people and animals are capable of transporting seeds of invasive species. AR 21554. Again, NEPA only requires that the Forest Service take a "hard look" at the issue, and does not mandate how the analysis is performed. I find that the Forest Service adequately assessed the impact of invasive species.

B. Consideration of Alternatives

Plaintiff argues that the Forest Service did not consider a sufficient number of alternatives to the Jazz project. Pl.'s MSJ 32.

NEPA requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E); N. Idaho Cmty. Action Network v. U.S. DOT, 545 F.3d 1147, 1153 (9th Cir. 2008). This "alternatives provision" applies whether an agency is preparing an EIS or an EA, and requires the agency to give full and meaningful consideration to all reasonable alternatives. N. Idaho Cmty. Action Network, 545 F.3d at 1153, citing Native Ecosystems Council v. U.S. Forest Serv., 428 F.3d 1233, 1245 (9th Cir. 2005). However, "an agency's obligation to consider alternatives under an EA is a lesser one than under an EIS." Id. at 1246. Whereas with an EIS, an agency is required to "[r]igorously explore and objectively evaluate all reasonable alternatives," see 40 C.F.R. § 1502.14(a), with an EA an agency is only required to include "brief discussions of the need for the proposal, [and] of alternatives as required by section 102(2)(E)…." 40 C.F.R. § 1508.9(b).

The available reasonable alternatives are dictated by the underlying purpose of the proposed action. See City of Carmel-by-the-Sea v. U.S. DOT, 123 F.3d 1142, 1155 (9th Cir. 1997). The court "reviews an agency's range of alternatives under a 'rule of reason' standard that requires an agency to set forth only those alternatives necessary to permit a reasoned choice." Presidio Golf Club v. Nat'l Park Serv., 155 F.3d 1153, 1160 (9th Cir. 1998). Finally, there is no minimum number of alternatives that must be considered. Native Ecosystems Council, 428 F.3d at 1246 (NEPA "does not impose a numerical floor on alternatives to be considered").

Defendant considered alternative plans. AR 21001-003. The Forest Service considered several variations of the proposed action, including (1) not building new roads or reopening old road alignments, (2) eliminating some road construction, (3) increasing levels of snags, downed woody debris, and leaving more skips, (4) deleting the thinning in Late-Successional Reserves, Riparian Reserves, and earthflows, and (5) eliminating all helicopter logging. AR 21001-05. The alternative to not building new roads or reopening old road alignments would affect half of the project acres. AR 21002. Without roads, helicopter logging was not feasible due to the high cost. Id. Eliminating thinning in the Late-Successional Reserves, Riparian Reserves, and earthflows would eliminate 95% of the proposed thinning. AR 21004. These alternatives were eliminated because they would not accomplish the purpose and need of the project, specifically increasing forest health, increasing vertical and horizontal stand structure, and providing forest products to the local economy. I find that the Forest Service considered a reasonable number of alternatives and adequately explained why the alternatives were not viable.

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C. EIS Requirement

Plaintiff argues that Defendant must prepare an EIS because the Jazz project may significantly affect the environment.

NEPA requires all government agencies to prepare an EIS when a proposed federal action may "significantly affect[] the quality of the human environment." 42 U.S.C. § 4332(2)(C). Importantly, the significant effect need not actually occur; it is sufficient to trigger the preparation of an EIS if a substantial question is raised "whether a project may have a significant effect on the environment." Blue Mountains Biodiversity Proj. v. Blackwood, 161 F.3d 1208, 1212 (9th Cir. 1998). If an agency moves forward without issuing an EIS, the agency must provide a "convincing statement of reasons" to support why the proposed project is not significant; this explanation is critical in demonstrating that the agency took the requisite "hard look" at the potential effects of a project. Id.

In assessing a project's significance, both its context and intensity are evaluated. 40 C.F.R. § 1508.27. The context varies depending on the scope of the project. Id. The intensity, or the "severity of the impact" of the proposed action, should be evaluated based on a number "significance" factors.[8] See 40 C.F.R. § 1508.27(b)(1)-(10). A court may find a substantial risk

[8] The following factors are considered in evaluating intensity:

> (1) Impacts that may be both beneficial and adverse.…
> (2) The degree to which the proposed action affects public health or safety.
> (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
> (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
> (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
> (6) The degree to which the action may establish a precedent for future actions….
> (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts….

of a significant effect based on just one of these factors. Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 865 (9th Cir. 2004).

Plaintiffs argue that the following significance factors weigh in favor of the preparation of an EIS for the project: [third factor] the proximity of the project to the Riparian Reserves, Late-Successional Reserves, and Tier 1 Key Watershed, which are ecologically critical areas; [fourth and fifth factors] the effects of the project on the human environment are highly controversial, uncertain, or involve unique or unknown risks, and [tenth factor] the project threatens a violation of law imposed for the protection of the environment. Pl.'s MSJ 39-40. The Forest Service disagrees that an EIS for the Project is required by NEPA.

The court in Cascadia Wildlands found the Riparian Reserves to be ecologically critical areas. 937 F. Supp. 2d at 1275, 1282. In finding the third factor weighs in favor of preparing an EIS, the court found that the "substantial decrease in the overall acreage of the [Lookout Mountain Potential Wilderness Area (PWA)]" and the construction of a permanent road would alter the unique characteristics of the area. Id. at 1281. Here, the Jazz project is vastly different than the one proposed in Cascadia Wildlands. The Cascadia Wildlands project is described as follows:

> 454 acres of removal or downgrade of northern spotted owl habitat. In Riparian Reserves, it includes 362 acres of commercial thinning and an additional 582 acres slated for fuels treatment. Also included in the proposed Project are 365 acres of fire-regenerated stands more than 80 years old. The Project authorizes one mile of permanent road construction, eight miles of temporary road construction, and 43 miles of road maintenance. Additionally, the project would result in 680 acres of PWA lost through harvest and fuels reduction and 569 acres

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> (8) The degree to which the action may adversely affect [places/structures] listed in or eligible for listing in the National Register of Historic Places….
> (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat….
> (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27.

> lost through fragmentation. In total, the Lookout Mountain PWA would lose 1,249 acres of its 9,684 acres of potential wilderness.

Id. at 1274. Although Riparian Reserves are affected by the Jazz project, unlike Cascadia Wildlands, the northern spotted owl habitat will not be downgraded or removed, no permanent roads will be built, and there is no loss of potential wilderness.

Plaintiff next argues that the effects of the Jazz project on the human environment are highly controversial or involve unknown risks because there is a "substantial dispute" about the project's impact. Pl.'s MSJ 39. Plaintiff argues that it has raised substantial questions about soil stability, soil productivity, water quality, and invasive species. Id. A disagreement in opinion does not undermine the validity of an EA. See City of Carmel-by-the-Sea, 123 F.3d at 1151. And as discussed throughout this opinion, I have found that the EA sufficiently disclosed the project's impacts and risks regarding soil impacts, water quality, and invasive species. Finally, Plaintiff argues that the project violates NFMA and Forest Plan standards. Because I have found otherwise, this factor does not favor requiring the Forest Service to prepare an EIS.

CONCLUSION

Based on the foregoing, I conclude that the Forest Service has not violated NFMA or NEPA. Therefore, Plaintiff's motion [51] is denied, Defendants' motion [57] is granted, and Defendant-Intervenor's motion [60] is granted.

IT IS SO ORDERED.

Dated this 11th day of April, 2014.

MARCO A. HERNÁNDEZ
United States District Judge