Docket No. 19-35665

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

BARK, CASCADIA WILDLANDS, OREGON WILD
Plaintiffs-Appellants

v.

U.S. FOREST SERVICE, a federal agency,
Defendant-Appellee
and
HIGH CASCADE, U.S., INC.,
Defendant-Intervenor-Appellee

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF OREGON
No. 18-cv-01645-MO, Honorable Michael Mosman

OPENING BRIEF OF APPELLANTS

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Fed. R. App. P. 26.1, Plaintiffs-Appellants state that they have no parent corporations and do not issue shares of stock, and accordingly no publicly held corporation owns 10% or more of its stock.

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GLOSSARY OF ACRONYMS

APA	Administrative Procedure Act
BLM	Bureau of Land Management
BMP	Best Management Practice
CH	Critical Habitat
DN	Decision Notice
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FWS	U.S. Fish & Wildlife Service
Forest Plan	Land and Resource Management Plan
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NSO	Northern Spotted Owl

I. STATEMENT OF JURISDICTION

Subject matter jurisdiction exists in the district court under 28 U.S.C. § 1331 because this action is brought against Defendant-Appellee U.S. Forest Service for violations of the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321−70h, the National Forest Management Act ("NFMA"), 16 U.S.C. §§ 1600–87, and the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701–06. The federal government waived sovereign immunity pursuant to 5 U.S.C. § 702.

Appellants Bark, Cascadia Wildlands and Oregon Wild are community organizations, whose thousands of members use and enjoy public lands affected by the Forest Service's decision to implement a large-scale logging and road building project on the east side of Mt. Hood National Forest, and who engaged extensively in the public process for the Crystal Clear Restoration Project.[1]

This appeal seeks review of the district court's June 18, 2019, Judgment and Opinion and Order. ER 1 (Opinion and Order), 28 (Judgment). This Court has jurisdiction under 28 U.S.C. § 1291 to review appeals from all final decisions of the district courts of the United States. Appellants timely filed their Notice of Appeal on August 14, 2019. *See* Fed. R. App. P. 4(a)(1)(B), 4(a)(2); ER29.

[1] The record demonstrates that Appellants have standing, which the Forest Service has not challenged. Excerpts of Record ("ER") 36-9 (Complaint).

II. ISSUES PRESENTED FOR REVIEW

1. Whether the Forest Service violated NEPA by failing to prepare an Environmental Impact Statement for the Crystal Clear Restoration Project. Issue raised and ruled on at ER4-16.
2. Whether the Forest Service took a hard look at direct and cumulative impacts of the Crystal Clear Project. Issue raised and ruled on at ER16-21.
3. Whether the Forest Service violated NEPA by analyzing only one action alternative. Issue raised and ruled on at ER21-22.
4. Whether the Forest Service violated NFMA by failing to comply with standards in the Northwest Forest Plan and Mt. Hood Land and Resource Management Plan. Issue raised and ruled on at ER22-26.

III. STATEMENT OF THE CASE

Along the eastern shoulder of Mount Hood National Forest (MHNF) lies a complex forest: diverse in species composition, elevation, forest type, past management, and fire history. A mantle of protection overlays this forest – it is designated as critical habitat for the iconic northern spotted owl, which is listed as threatened by the Endangered Species Act. Across this ecologically critical area, MHNF planned its largest management project in memory: the nearly 12,000-acre Crystal Clear Restoration Project ("CCR Project"). The CCR Project is comprised

of multiple aspects, including thinning in saplings and plantations as well as in almost 3,000 acres of mature and old growth forests. ER100.

Publicly, the Forest Service claimed that all aspects of the projects are necessary to improve forest health and reduce the risk of future fires. ER948-49. Internally, the Forest Service's rationale for this project is to meet its timber volume targets. ER962-64. The discrepancy between the public facing "restoration" rationale and the internal drive to produce timber gives rise to many of the legal claims in this case. What's more, it highlights the need for judicial scrutiny to ensure the government is not violating the public trust. As the Supreme Court very recently noted, "the reasoned explanation requirement of administrative law, after all, is meant to ensure that agencies offer genuine justifications for important decisions, reasons that can be scrutinized by courts and the interested public. Accepting contrived reasons would defeat the purpose of the enterprise." *Dept. of Commerce v. New York*, 588 U.S. __ (2019).

In preparing the CCR Project, the Forest Service violated NEPA by ignoring the substantial scientific controversy and uncertainty surrounding the CCR Project's anticipated environmental effects, by failing to thoroughly evaluate other reasonable alternatives that would meet the project's restoration goals without degrading spotted owl critical habitat or increasing fire risk, and by failing to take a hard look at the Project's cumulative effects and its relationship with climate

change. The agency also violated NFMA by failing to comply with the Northwest Forest Plan's protections for Late-Successional Reserves and the snag (standing dead tree) retention standards in the Mt. Hood Land and Resource Management Plan.

On August 25, 2017, MHNF issued its draft Environmental Assessment (EA) for the CCR Project. Appellants submitted formal comments with the Forest Service. On February 8, 2018 MHNF released its Final EA and draft Finding of No Significant Impact (FONSI). ER326-560. Appellants filed timely pre-decisional objections and attended an objection resolution meeting with MHNF staff. ER684-850. Appellants challenged the Decision Notice (DN)/FONSI issued June 27, 2018, alleging that the Forest Service violated NEPA and NFMA in approving the CCR Project. ER 98-111, Clerk's Record (CR) 1. The timber sale purchasers intervened as defendants in this case. CR14. The district court granted the Forest Service's and intervenor's cross-motions for summary judgment on June 18, 2019. ER1-28, CR64-5.

IV. STATEMENT OF RELEVANT FACTS

1. THE NORTHWEST FOREST PLAN AND MT. HOOD FOREST PLAN

In 1994, the U.S. Forest Service and Bureau of Land Management ("BLM") adopted the Northwest Forest Plan (NWFP), establishing new management requirements for the land they administer as a comprehensive response to the long

and bitter legal battle over logging in forests that house the threatened northern spotted owl. *See Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1126 (9th Cir. 2007) ("*Brong*"). The NWFP amended all pre-existing Forest Plans in the region, including the MHNF LRMP so that both Plans guide management of MHNF. ER942. In the event that there are differences between the two documents, the NWFP controls. *Id*.

The NWFP created seven different land allocations, each with different management emphases and governed by different standards and guidelines. Of particular relevance here is land designated as Late Successional Reserves (LSRs). LSRs must be managed to protect and enhance conditions of mature and old-growth forest ecosystems to provide habitat for species like the spotted owl. ER945. The NWFP strictly limits logging within LSRs to action that is beneficial to creating late-successional forest conditions. ER947.

2. NORTHERN SPOTTED OWL CRITICAL HABITAT

Overlapping the land designations of the Forest Plans is land designated as Critical Habitat for the northern spotted owl (NSO), listed as threatened under the Endangered Species Act (ESA) in 1990. 16 U.S.C. §§ 1532(6), (20). The intent of the ESA is to conserve ecosystems upon which threatened and endangered species depend and recover listed species to the point at which they no longer need the protections of the Act. *Id.* §§ 1531(b); 1532(3). Once a species is listed as

threatened or endangered, the U.S. Fish and Wildlife Service (FWS) must designate critical habitat, defined as occupied or unoccupied habitat that contains physical or biological features essential to the conservation of the species and which may require special management considerations or protection. *Id.* § 1532(5).

FWS designated critical habitat for the spotted owl in 1992, which it revised in 2008 and, in response to litigation, revised again in 2012. 77 Fed. Reg. 71876 (Final Critical Habitat rule published Dec. 4, 2012). The purpose of spotted owl critical habitat is to ensure sufficient habitat to support stable, healthy populations of spotted owls across the range and within each of the recovery units and to ensure distribution of spotted owl habitat across the range of habitat conditions used by the species. ER244. Critical habitat protections are meant to work in concert with other recovery actions included in the owl's Recovery Plan. *Id*. Finalized in 2011, the Recovery Plan applies to all pre-existing federal land designations (including both "Matrix" and "LSRs"). ER851-902. The Recovery Plan identified competition with barred owls, the ongoing loss of spotted owl habitat from logging and climate change as the leading range-wide threats to the spotted owl's survival and recovery. ER852.

The 2012 Critical Habitat rule established Critical Habitat Unit Eastern Cascades North (ECN), which covers 1,345,523 acres and has nine subunits,

including sub-unit ECN-7, within which the CCR Project lies. ER926. Characterized by a continental climate (cold, snowy winters and dry summers), ECN-7 covers 139,983 acres of the eastern slope of MHNF. ER926. The condition of this sub-unit has been degraded by decades of high levels of timber harvest and the ongoing expansion of the barred owl population into spotted owl habitat. *Id.* These past and present threats led to the inclusion of eight special management protections for the East Cascades Unit, including conserving older stands and minimizing vegetation management treatments in spotted owl territories or highly suitable habitat. ER251-52. The final rule also determined that all the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criteria. 77 Fed. Reg. 71876, 71929.

Not all Critical Habitat currently provides suitable spotted owl habitat. Spotted owls rely on older forests to provide "suitable habitat" because they generally contain the characteristics required for the owl's essential biological functions of nesting, roosting, and foraging, including: a multi-layered, multispecies tree canopy dominated by large overstory trees; 60-80% canopy closure; a high incidence of trees with large cavities and other deformities; numerous large snags; an abundance of large, dead wood on the ground; and open space within and below the upper canopy for owls to fly. ER257. Currently less than half of ECN-7 (58,397 acres) provides suitable spotted owl nesting, roosting

and foraging (NRF) habitat. ER162. The CCR Project will degrade 1,059 acres of currently suitable NRF habitat (downgrading to dispersal habitat only), as well as completely remove 895 acres of dispersal habitat. ER460. The Forest Service recently approved several other timber sales in this same sub-unit that remove an additional 2,114 acres of suitable NRF habitat. ER217. Combined, these projects remove 3,173 acres of suitable habitat, more than 5% of the suitable habitat remaining in all of ECN-7.

As required by the ESA, the Forest Service prepared a Biological Assessment (BA) to consult with the FWS about the CCR Project's impacts to federally listed threatened and endangered species and designated critical habitat. ER242. The Forest Service determined the CCR Project is "likely to adversely affect" (LAA) the spotted owl and its critical habitat due to degradation of the owl's nesting, roosting, and foraging habitat and loss of dispersal habitat. ER920. The FWS issued a Biological Opinion concurring with the Forest Service's conclusion. ER155-70.[3]

3. THE CRYSTAL CLEAR RESTORATION PROJECT

In April 2016, the Forest Service's Regional Office agreed to provide MHNF $250,000 in Timber Sale Pipeline Restoration (TSPR) funds for the CCR

[3] Also concurring that the Project was "not likely to adversely affect" the other listed species. *Id*.

Project and directed MHNF's Forest Supervisor to produce 100,000 CCF[4] of timber (approximately double MHNF's annual timber volume). ER957-58. As noted in the agreement, "an objective of the TSPR Fund is to provide for the efficient, timely, and cost-effective preparation of non-salvage sales to restore a pipeline of sales ready for offer. . . NEPA should be completed within 1 year from TSPR fund expenditure, and volume should be advertised for sale within 1 year from the time when sale preparation has been completed." *Id*. The Barlow District Ranger introduced the CCR Project to the Wasco County Forest Collaborative as planned primarily to provide "shelf stock" to meet MHNF's timber volume quota. ER173, *see also* ER962-64 (Interdisciplinary Team notes emphasize the project provides an opportunity to create "shelf-stock in veg volume."). Because of the strict NEPA timeline, the Forest Service did not engage the Wasco County Forest Collaborative in planning the CCR Project. ER969.

More than a year after planning began, the rationale of logging for fuels reduction first appeared in the record in the public-facing scoping letter. ER948-49. Though the Project's stated purpose and need was to "conduct vegetation restoration activities within the planning area to improve the health and vigor of forested stands while reducing the risk of human-caused fires spreading from high

[4] "CCF" is a measure of volume for one hundred cubic feet. One cubic foot is equivalent to a 12"x12"x12" solid cube of wood.

risk areas onto non-federal lands," it is not located on land prioritized for fire risk reduction by the Wasco County Community Wildfire Protection Plan. *Id*. The CCR Project is located in Zone 3 and recommendations for this zone focus exclusively on protecting settled communities, of which there are none in or adjacent to the proposed Project area. ER952-3. Neither is the CCR Project a priority under the MHNF Strategic Fuel Placement Plan, as it is not a priority area in a Community Wildfire Plan, nor primarily outside its natural vegetation condition class. ER955. The majority[5] of the CCR Project is within Fire Regime Condition Class 1, meaning that it is least departed from its natural (historic) range of variability for fuel composition, fire frequency, severity and pattern. ER401. Notably missing from any of the public NEPA documentation was the timber volume target the TSPR agreement required this project to produce. *See* ER562.

Originally covering over 12,000 acres, the CCR Project proposed to thin 4,244 acres of saplings, 4,011 acres of plantation (forest that has been logged and replanted) and 3,814 acres of thinning in "non-plantation"[6] forest. ER341.

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[5] In the moist mixed conifer forest, 95% of the "moist fuel treatment" acres and 97% of the "moist forest health treatment" are in Condition Class 1. In the drier, more fire-influenced forest, 51% of the "dry forest health" treatment acres and 28% of the "dry fuel treatment" are in Condition Class 1. ER401.

[6] The EA defines non-plantation as follows: "Non-plantations contain treatment units that are not in sapling areas or existing plantations. Non-plantations may have received intermediate thinning or sapling thinning treatment in the past 15 years, but because the areas do not meet the conditions of plantations, they are not labeled as such." ER554.

According to the unit descriptions, and confirmed by Appellants' field work, approximately 2,970 acres of the "non-plantation" stands are mature and old-growth forest (80-332 years old). ER126-152, ER182-89. After the Forest Service released its draft EA for the CCR Project, Appellants provided the Forest Service numerous relevant scientific studies and literature references as well as very detailed, site-specific information gleaned from thousands of hours their staff and volunteers collectively spent in the CCR Project area. See ER172-241. Appellants' detailed comments on the draft EA supported thinning in saplings and plantations that have significantly departed from their natural fire regime. Appellants, however, urged the Forest Service to consider additional alternatives that might better meet the purpose and need than overstory logging in mature, native forest, especially that which provides suitable spotted owl habitat and that the record shows has not significantly departed from natural (historic) conditions. ER178-80, 616. Appellants requested the Forest Service consider alternatives that focused the non-plantation logging in areas that are outside the natural fire regime and/or are not high-quality spotted owl habitat and/or set a diameter limit on trees logged, any of which would result in more effective fuels reduction while also protecting critical habitat. *Id.*

In February 2018, the Forest Service issued a Draft Decision Notice (Draft DN) and final EA for the CCR Project. ER326-560. Appellants were among 15

individuals and organizations that submitted pre-decisional objections to the Draft DN. ER684-850. The agency proposed resolving the pending objections by remove 2.2 miles of temporary roads and removing and/or modifying 327 acres of harvest units and the final decision included these modifications.[8] ER99. Released June 27, 2018, the Finding of No Significant Impact (FONSI) and Final DN selected the only Action Alternative the agency considered in detail: thinning 4,244 acres of saplings, 4,004 acres of plantations, and 3,494 acres of non-plantation mixed-conifer forests, including approximately 440 acres of logging in the White River LSR; a variety of fuel treatments throughout the Project area; and the use, reconstruction and/or maintenance of approximately 35.8 miles of roads. ER100.

On September 14, 2018, the Forest Service received bids for the first 680 acres of logging in the CCR Project, packaged as the Ahoy Stewardship Project. This sale would log 17,829 CCF of timber (equaling 49,000 tons of Douglas Fir and 3,000 tons of other mixed conifer trees). The area under this contract primarily contains mature and old growth forest, including suitable spotted owl habitat, LSRs, and forest stands up to 220 years old. *See* CR46 (motion for Injunction pending Appeal). A second contract, for the Bilge Stewardship Project, has been sold to Boise Cascade. It would log 16,125 CCF of timber over 631 acres,

[8] The units modified in the Objection Resolution had little overlap with the units Appellants identified as violating regulation, law or policy.

including old-growth LSRs.[10] A third timber sale, Plank, was up for bid on September 11, 2019. Covering 740 acres, it would produce 10,174 CCF of timber volume in moist, mixed conifer forest in the westernmost portion of the project.[11]

V. SUMMARY OF THE ARGUMENT

The primary issues before this Court are whether the Forest Service provided a compelling statement of reasons as to why the impacts of the CCR Project are not significant, took a "hard look" at the direct and cumulative environmental impacts of its proposal to log on thousands of acres of mature & old-growth forest, complied with its duties under NEPA to analyze all feasible alternatives in detail, and whether the Forest Service complied with the protection for LSRs and wildlife habitat, as required by the NWFP and Forest Plan.

The Forest Service did not comply with its duties to the public under NEPA when it made a finding of no significant impact despite a wealth of evidence in the administrative record indicating the project may significantly impact the environment, including a large body of scientific research that contradicts the Forest Service's conclusions as to the restorative nature of logging large, overstory trees for both fire risk reduction and spotted owl habitat. The Forest Service also

[10] See MHNF Website: https://www.fs.usda.gov/detail/mthood/landmanagement/resourcemanagement/?cid=STELPRDB5306406

[11] *Id.* at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd649172.pdf

violated NEPA by failing to take a "hard look" at the cumulative impacts of the project on the NSO and the intersection of the CCR Project and climate change, again despite a wealth of information provided by the public in the administrative review process. The Forest Service failed to satisfy NEPA's basic obligations to incorporate public input into the project and explain to the public the likely consequences of the timber sale. The DN/FONSI also does not supply a convincing statement of reasons as to why the impacts of this project would not be significant, thereby warranting the preparation of an Environmental Impact Statement ("EIS").

In assessing the environmental impacts of the CCR Project, the Forest Service analyzed two alternatives: the proposed action of treating all ~12,000 acres, and no action, despite the existence of other reasonable and feasible alternatives suggested by Appellants during the administrative process. These included elimination of logging units within suitable NSO habitat or focusing logging in areas that were outside of their natural fire return interval or setting a diameter limit to retain larger trees on the landscape. These alternatives would meet the stated restorative purpose and need for the project—to "conduct vegetation restoration activities within the planning area to improve the health and vigor of forested stands while reducing the risk of human-caused fires." ER498-99. The Forest Service violated NEPA by failing to analyze in detail any of the feasible reduced-logging alternatives.

Finally, the Forest Service violated NFMA by authorizing logging on 440 acres of Late Successional Reserves without meeting its burden to prove such logging was necessary for restoration, and authorizing the loss of snags from a watershed already far below the Forest Plan's minimum level for snag density.

VI. ARGUMENT

1. STANDARD OF REVIEW

This Court reviews de novo a district court's ruling on cross-motions for summary judgment. *Guatay Christian Fellowship v. Cnty. of San Diego*, 670 F.3d 957, 970 (9th Cir. 2011). The Forest Service's compliance with NEPA is reviewed under the judicial review provision of the Administrative Procedure Act ("APA"), which requires a Court to hold unlawful and set aside an agency decision that is "arbitrary, capricious, an abuse of discretion, or not otherwise in accordance with law," or adopted "without observance of procedure required by law." 5 U.S.C. §§ 706(2)(A), (D); *Ctr. for Biol. Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1194 (9th Cir. 2008). A decision is arbitrary and capricious if the agency has "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision 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." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co*., 463 U.S. 29, 43 (1983).

The APA standard of review is "narrow" and "deferential," but also requires the Court to undertake "an inquiry into the facts [that is] searching and careful." *Sierra Club v. Bosworth*, 510 F.3d 1016, 1022 (9th Cir. 2007) (internal quotation omitted). Courts afford deference to agency decisions that are well-reasoned, adequately explained, and supported by the facts and science before the agency, but act as a crucial corrective for poorly reasoned or factually unsupported agency actions. *See id*. at 1023 ("We will defer to an agency's decision only if it is fully informed and well-considered, and we will disapprove of an agency's decision if it made a clear error of judgment[.]")

No deference is due to agency conclusions or decisions where they are not supported by the facts in the record. *Ariz. Cattle Growers' Ass'n v. U.S. Fish & Wildlife Serv*., 273 F.3d 1229, 1236 (9th Cir. 2001) (an agency is not entitled to deference where its "conclusions do not have a basis in fact"). Neither is deference due if an agency decision is not complete, reasoned, and adequately explained, because the "keystone" of the Court's review "is to ensure that the [agency] engaged in reasoned decisionmaking." *Nw. Coal. for Alternatives to Pesticides v. EPA*, 544 F.3d 1043, 1052 n.7 (9th Cir. 2008). ("'where the agency's reasoning is irrational, unclear, or not supported by the data it purports to interpret, [the Court]

must disapprove the agency's action'") (quoting *Ctr. for Auto Safety v. Peck*, 751 F.2d 1336, 1373 (D.C. Cir. 1985) (Wright, J., dissenting)).

Finally, no deference is due where an agency's conclusions lack scientific corroboration. "[W]hile the conclusions of agency experts are surely entitled to deference, NEPA documents are inadequate if they contain only narratives of expert opinions." *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 996 (9th Cir. 2004) ("*KS Wild*"). "Expert discretion is the lifeblood of the administrative process, but unless we make the requirements for administrative action strict and demanding, expertise, the strength of modern government, can become a monster which rules with no practical limits on its discretion." *Burlington Truck Lines v. United States*, 371 U.S. 156, 167 (1962).

2. THE CRYSTAL CLEAR PROJECT VIOLATES NEPA

Enacted in 1969, NEPA "declares a broad national commitment to protecting and promoting environmental quality." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989); *see* 42 U.S.C. § 4331. "To ensure this commitment is 'infused into the ongoing programs and actions of the Federal Government, the act also establishes some important "action-forcing" procedures.'" *Robertson*, 490 U.S. at 348 (quoting 115 Cong. Rec. 40416 (1969)). To achieve these broad goals, NEPA requires federal agencies to prepare, consider, and approve an Environmental Impact Statement (EIS) for "any major federal

action significantly affecting the quality of the human environment." 40 C.F.R. § 1501.4(a)(1). The Forest Service must prepare an EIS "if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor." *Klamath-Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006) (citing *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1998)). To trigger this requirement, a "plaintiff need not show that significant effects *will in fact occur*, but if the plaintiff raises substantial questions whether a project *may* have a significant effect, an EIS must be prepared." *Id*. (emphasis in original). This "is a low standard." *Id.*

When an agency is unsure whether an action is likely to have "significant" environmental effects, it may prepare an EA: a "concise public document" designed to "[b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement...." *KS Wild*, 387 F.3d at 991, *citing* 40 C.F.R. §1508.9. If the agency decides not to prepare an EIS, the FONSI must set forth a "convincing statement of reasons" explaining why the action will not significantly impact the environment. *Blue Mtns. Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998); *see also*, §1508.13. "The statement of reasons is crucial to determining whether the agency took a 'hard look' at the potential environmental impact of a project." *Id.* In reviewing the Forest Service' decision not to prepare an EIS, the Court must determine whether

the agency has taken a "hard look" at the consequences of its actions and based its decision "on a consideration of the relevant factors.'" *Nat'l Parks & Conservation Ass'n. v. Babbitt*, 241 F.3d 722, 734 (9th Cir. 2001) ("*NPCA*").

A. Failure to Prepare an EIS for the CCR Project

NEPA does not provide quantified criteria for what constitute "significant" effects. Rather, "[d]etermining whether an action "significantly" affects the quality of the human environment requires 'considerations of both context and intensity.'" *Barnes v. U.S. Dep't of Transp.*, 655 F.3d 1124, 1139 (9th Cir. 2011) (quoting 40 C.F.R. § 1508.27). "Context" means that the significance of an action must be analyzed in several contexts such as "society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend on the effects *in the locale* rather than in the world as a whole." 40 C.F.R. § 1508.27(a), *see also Anderson v. Evans*, 314 F.3d 1006, 1019 (9th Cir. 2002) (emphasis added). As discussed further, in its opinion the district court improperly relied on its own novel approach to evaluating "context"– the appropriate scale at which to determine significance for a site-specific project – that substantially departs from both a plain reading of NEPA's regulations and established case law.

"Intensity" refers to "the severity of the impact" as judged by ten non-exclusive factors, including whether the environmental effects of the project are highly controversial or involve a high degree of scientific uncertainty and impacts to ESA-listed species and their critical habitat. *See* 40 C.F.R. § 1508.27(b)(1)-(10). The presence of any one intensity factor may indicate that the impacts are significant, requiring preparation of an EIS. *Ocean Advocates v. Army Corps of Eng'rs*, 402 F.3d 846, 865 (9th Cir. 2004). The record shows that several intensity factors are present, both individually and cumulatively, indicating that the CCR Project is likely to have a significant environmental impact. *See e.g. Cascadia Wildlands v. U.S. Forest Serv*., 937 F. Supp.2d 1271, 1283-84 (D. Or. 2012) (holding that when considered individually, certain significance factors present in that case might not have triggered the need for an EIS, but "when considered collectively, they do."). The FONSI does not provide a convincing statement otherwise.

i. Commercial logging mature trees to purportedly reduce fire severity and benefit spotted owls is highly controversial and the desired outcome highly uncertain.

A proposal is highly controversial, mandating preparation of an EIS when (1) "substantial questions are raised as to whether a project ... may cause significant degradation of some human environmental factor;" or (2) there is "a substantial dispute [about] the size, nature, or effect of the major Federal action."

40 C.F.R. § 1508.27(b)(4), *NPCA*, 241 F.3d at 736. A substantial dispute exists "when evidence, raised prior to the preparation of an EIS or FONSI, casts serious doubt upon the reasonableness of an agency's conclusions." *Id.* Further, where "the environmental effects of a proposed action are highly uncertain or involve unique or unknown risks, an agency must prepare an EIS." *Ocean Advocates*, 402 F.3d at 870 (citing 40 C.F.R. § 1508.27(b)(5)). Given the extensive evidence in the record, it was arbitrary and capricious for the Forest Service to find that the impacts of the CCR Project are not highly controversial and uncertain.

In its Final EA, the Forest Service refined the project's purpose: "to provide forest products from specific locations within the planning area where there is a need to improve stand conditions, reduce the risk of high-intensity wildfires, and promote safe fire suppression activities." ER340. This purpose, along with the name of the sale, continue the Forest Service's public narrative that the CCR Project will restore a forest in need of restoration. In truth, CCR combines two very different projects – one to restore forest health and one to produce timber volume – and uses the benefits of one to obscure the adverse impacts of the other.

On the one hand, independent scientific research agrees that thinning saplings and plantations in dry mixed conifer forests followed by prescribed burning improves forest health and reduces the risk of high-intensity wildfires. Appellants have long supported these parts of the project and, outside of this

litigation, have successfully collaborated with the Forest Service to create similar projects based on these areas of scientific consensus. However, in its TSPR agreement the Forest Service committed to producing a substantial volume of timber, which cannot be met by only thinning saplings and plantations. Thus, the CCR Project includes logging thousands of acres of mature, overstory trees in stands aged 90-323 years, most of which are within their natural fire regime. ER126-152, 401. Logging these large, overstory trees would reduce the forest canopy to 50% or less in most of the Project area, well below the 60-80% canopy cover needed to support spotted owls. ER126-152, 963 ("Most of the area would be brought to 40% canopy cover").

On the other hand, the Forest Service asserts with little or no data or analysis, that variable density thinning, which all parties agree can help restore areas damaged by past management, is also needed to restore mature native forest. ER396-8. The hypothesis that substantially reducing the canopy in mature forests (dry or moist) will improve forest health and/or reduce the severity of a possible future fire is controversial at best. The record is replete with public comments, starting in pre-scoping and continuing throughout administrate review period, that discuss scientific studies contradicting the Forest Service's assertion that logging mature backcountry forests will decrease the severity of a future wildland fire. *See, e.g.*, ER616-625, 702-704, 724, 845. Indeed, peer-reviewed scientific research

found that, in the event of a fire, large, old trees are not only the most likely to survive, but they subsequently serve as biological legacies and seed sources for ecosystem recovery – these trees are impossible to replace within the relevant time scale. ER198. The growing scientific consensus is that logging large, fire-resistant trees in mature forests actually *increases* severe fire risk as reducing the forest canopy makes stands hotter, drier, windier and stimulates the growth of the understory. *See, e.g.*, 618, 621-32, 735 ("The removal of larger, mature trees in thinning operations **tends to increase, not decrease, fire intensity.** The scientific evidence clearly indicates that, where it is important to reduce potential fire intensity (e.g., immediately adjacent to homes) this can be very effectively accomplished by thinning some brush and very small trees up to 8 to 10 inches in diameter. Removal of mature trees is completely unnecessary.") (emphasis added). In its opinion, the district court acknowledged, "[Appellants] have produced evidence that casts some doubt on the USFS' conclusion that VDT [variable density thinning] in nonplantation stands will prevent fires." ER9.

Similarly, the Forest Service's claim that logging existing high-quality spotted owl habitat will benefit the species in the long-term is not supported by the available science. The Recovery Plan and Critical Habitat Rule encourage active management in younger, overstocked stands and plantations, particularly in dry forest sites, but discourage it in already functioning high-quality owl habitat.

ER871 (Efforts to alter either fuel loading or potential fire behavior in mature moist forest could have undesirable ecological consequences.); 77 Fed. Reg. 71876, 71881-82 ("[A]ctive forest management within such areas [of critical habitat] could negatively impact northern spotted owls. We are not encouraging land managers to consider active management in areas of high-quality owl habitat"). In addition, Appellants submitted an independent study testing the hypothesis that logging spotted owl habitat to protect it from future fire would benefit the species. The study found the opposite: long-term benefits of commercial thinning do not outweigh adverse impacts to owls, *even if* much more fire occurs in the future. ER759-73. The Forest Service's Biological Assessment acknowledged that "the ability to protect spotted owl habitat and viable populations of spotted owls from large fires through risk-reduction endeavors is uncertain." ER259.

When such evidence of a scientific dispute about the effects of a project is presented, NEPA places the burden on the agency to come forward with a "well-reasoned explanation" demonstrating why those responses disputing the EA's conclusions "do not suffice to create a public controversy based on potential environmental consequences." *NPCA*, 241 F.3d at 736. Neither the EA nor the FONSI provide anything close. The FONSI includes a brief denial – "the science behind thinning and other vegetation management techniques is not highly

controversial based on a review of the record that shows a thorough review of relevant scientific information" – which runs counter to the wealth of contrary evidence in the record. ER107. When pressed by Judge Mosman during oral arguments, defense counsel could not confirm that the Forest Service ever engaged and weighed the competing science and affirmatively concluded that there was *not* a dispute as to the project's "nature and effects." *See* ER293-307 (transcript).

In a very similar, but much smaller scenario, the BLM planned a pilot project purportedly designed to serve as a demonstration of "ecological restoration" that called for logging 160 acres of mature native forest in suitable spotted owl habitat. *Or. Wild v. BLM*, 2015 WL 1190131, *7 (D. Or. March 14, 2015). The district court found that the record, including the owl's Recovery Plan, and comments from scientists and the public, demonstrated evidence of a "substantial dispute" casting "serious doubt upon the reasonableness" of BLM's decision to log stands over 80 years old. *Or. Wild* at *9, citing *NPCA*, 241 F.3d at 736 ("agency has burden to convincingly refute evidence of controversy"). When faced with a project with both restoration and timber objectives, coupled with scientific controversy over whether it met the restoration objective, Judge Aiken opined: "The Court does not express an opinion about the merits of the BLM's decision to harvest designated critical habitat and trees older than 80 years. However, the Court finds that BLM's failure to acknowledge the 'highly controversial' nature of

that decision was arbitrary and capricious in light of the evidence in the record. This significance factor weighs in favor of an EIS." *Id.*

Not only did the Forest Service fail to provide a "well-reasoned explanation" demonstrating that there is no serious scientific controversy or uncertain environmental consequences, the agency's failure to "discuss and consider" evidence contrary to its position suggests that it "did not take the requisite 'hard look' at the environmental consequences." *Blue Mountains*, 161 F.3d, 1208, 1213 (Forest Service failed to disclose independent report's findings in its EA that there "is no ecological need for immediate intervention in post-fire landscapes."); *Sierra Club*, 199 F.Supp.2d at 979-80 (Forest Service violated NEPA by failing to disclose the lack of scientific support for its belief that logging would reduce the intensity of future wildfires, and failing to address contradictory science). In its thorough analysis of this issue, this Court reiterated that because the purpose of an EIS is to obviate the need for speculation about environmental impacts, preparation of an EIS is mandated where uncertainty may be resolved by analysis of competing scientific research or further collection of data. *See NPCA*, 241 F.3d at 734, quoting *Sierra Club v. United States Forest Serv.*, 843 F.2d 1190, 1195 (9th Cir.1988).

Although recognizing that there **is** a scientific controversy regarding the potential environmental consequences of the CCR Project, the district court viewed

the impacts of that controversy in a context that minimized the impacts into insignificance. To make this finding, the district court focused solely on logging moist mixed conifer mature and old growth forests, further narrowing the scope by suggesting that "less than one percent" of the area is "classified as the type of old growth that Bark claims to cause controversy when thinned to reduce the risk of fire". ER9.[12]

The district court's calculation of the amount of forest adversely affected by this controversy is incorrect, as is its choice of "context." First, it is inaccurate to portray Appellants' concerns as applying only to logging in moist mixed conifer forests, as they introduced evidence of scientific controversy surrounding logging overstory trees in *both* dry and moist mature forests, which together make up 30% of the project. Second, the chart upon which the district court relied (ER395) is not supported by any underlying data or explanation and is contradicted by the fact that the CCR Project includes at least 1,059 acres of suitable spotted owl habitat, which by definition is comprised of multi-story and late successional forest. ER257. Third, the district court misrepresents the extent of logging mature forests in the project area; while there is a concentration of old growth logging in the northeast

[12] Even though the 1% figure does not accurately reflect the amount of impacted forest, the CCR Project is so large that 1% of the project is **117 acres** – just slightly less than the amount which required an EIS in *Oregon Wild v. BLM*. 2015 WL 1190131, at *1-10.

corner, there are non-plantation stands scatted throughout the area, covering a total of 3,494 acres. ER153. This represents more mature forest slated for logging than any one timber sale in MHNF's recent history; indeed, more logging of native forests than **all** MHNF's timber sales over the past 10 years combined. Finally, the court improperly diluted the significance of this issue by comparing the acreage of concern against the backdrop of the entire 1.4 million-acre MHNF. ER10, n.1.

For intensity factors like scientific controversy and uncertainty, the appropriate context within which to analyze a site-specific project's potential significance is the specific ecosystem(s) affected by the disputed agency action. This approach would follow NEPA's regulations for context, "[s]ignificance varies with the setting of the proposed action", and align with this court's approach to context in *Anderson v. Evans*, which stressed that a NEPA analysis must address uncertain impacts to the *local* wildlife population and the local ecosystem. 314 F.3d at 1018-19. In this case, the unprecedently large and sprawling CCR Project will have significant impacts on MHNF's scarce remaining late-successional forest ecosystems and those species that rely upon them.

ii. Potentially significant direct impacts to Spotted Owls and Critical Habitat.

While there is a high degree of uncertainty and controversy regarding potential long-term benefits for northern spotted owls from logging mature trees, there are well known adverse direct and cumulative impacts from the immediate

loss of suitable and dispersal habitat. This factor also weighs heavily in favor of the need for an EIS. 40 C.F.R. §1508.27(b)(9). In its consultation with FWS, the Forest Service determined the CCR Project is Likely to Adversely Affect the threatened spotted owl and its critical habitat by removing 1,059 acres of suitable habitat and 895 acres of dispersal habitat for the next 75 to 100 years. ER460. Fuels reduction activities and the construction/re-construction of 4 miles of new temporary roads, all of which are in suitable habitat, are also likely to adversely affect the owl. ER250. As discussed *supra*, much of the Project's commercial logging component is at odds with the management recommendations of the spotted owl's Recovery Plan. Not only does the CCR Project call for logging an extensive amount of older forest, but also it results in a net reduction of 300 acres of habitat within the eight potential home ranges that occur in the Project area—including two that are already below the 40% suitable habitat threshold. ER451 (An area is unlikely to support spotted owls when suitable habitat comprises less than 40% of the home range). "Standing alone, this suggests the need for an EIS." *Klamath-Siskiyou Wildlands Ctr. v. U.S. Forest Serv.*, 373 F. Supp. 2d 1069, 1080 (E.D. Ca. 2004).

Despite conservation efforts under the NWFP and its system of LSRs, spotted owl populations continue to decline on a range-wide basis due, in part, to the continued logging of critical habitat. *Or. Wild*, 2015 WL 1190131, *1, *see also*

ER159 (populations of the spotted owl have declined by as much as 80% since 1990). In addition, the ongoing range expansion and increasing competition from the non-native barred owl are now a significant threat to the continued existence of the spotted owl. ER159. The Forest Service's BA found that the CCR Project would increase competitive pressure with barred owls and that scientists recommend forests older than 120 years be protected to avoid further increasing this pressure. ER243. Despite this troubling context and known adverse effects, the Forest Service summarily concluded that the Project's impacts to the spotted owl and its critical habitat are insignificant: "Because my decision adheres to the guidance set forth in the Recovery Plan and the conservation needs of the Spotted Owl will continue to be met, the effects to the Spotted Owl do not warrant documentation in an Environmental Impact Statement." AR 21078-9.

This statement is arbitrary and capricious and is not supported by the record, which unambiguously shows that the overstory removal of mature trees in existing suitable habitat does not adhere to the Recovery Plan. See ER 870 (Restoration activities conducted near spotted owl sites should focus on areas of younger forest less likely to be used by spotted owls and less likely to develop late-successional forest characteristics without vegetation management); ER872 (Conserve older stands that have occupied or high-value spotted owl habitat); ER873 (Cases where facilitating a thinning operation necessitates felling existing remnant trees over 120

years old should be rare.) Indeed, the Recovery Plan explicitly recommends against land managers being "so aggressive that they subject spotted owls and their habitat to treatments where the long-term benefits *do not clearly outweigh* the short-term risks." ER852 (emphasis added).

Here, the district court scaled up its level of analysis, finding it "inappropriate to use the stand scale as the relevant context" for evaluating impacts, solely because "every project in [spotted owl] habitat has a significant effect when viewed at a small scale." ER13. But this is exactly what NEPA intends: if an action adversely affects an endangered or threatened species and its critical habitat, it requires the level of analysis provided by an EIS. *See* 40 C.F.R. § 1508.27(b)(9). Other courts have been far less reluctant to find that the loss of spotted owl critical habitat is significant. Most recently in *Or. Wild v. BLM*, the district court held an EIS was required because the project would log 160 acres of NSO critical habitat, resulting in the loss of 153 acres of suitable habitat. 2015 WL 1190131, at *9-10. In comparison, the CCR Project would log roughly 18 times more mature and old growth forest, including many stands that are far older than those in *Or. Wild v. BLM*. *Id.*, *see also Cascadia Wildlands v. U.S. Forest Serv.*, 937 F. Supp. 2d at 1281-84 (logging that would downgrade 406 acres and remove 82 acres of suitable spotted owl habitat, along with uncertainty regarding interspecies competition with barred owls, required an EIS); *Klamath-Siskiyou*

Wildlands Ctr., 373 F. Supp. 2d at 1080-83 (EIS warranted where project would result in the loss of 500 acres of high/moderate quality spotted owl habitat).

Instead of assessing the significance of impacts to owls and their critical habitat in the context of the locale, the district court argued that direct effects should be evaluated at a unit or sub-unit scale[13], with reference to the owl's Recovery Plan. The opinion suggested that "[o]n either scale, the effect is so small that there are no substantial questions as to whether the Project may cause significant degradation of the [spotted owl] and its habitat." ER13. There are several problems with this approach.

First and foremost, the district court based its decision on a context that the Forest Service did not use. At no point in its NEPA analysis did the Forest Service evaluate the direct impacts to spotted owls and critical habitat at the unit or sub-unit level. The EA focused on habitat loss at the stand level, concluding "Because PBF 4 would be removed on 895 acres, and PBFs 2 and 3 would be downgraded on 1,059 acres, these treatment units would no longer provide or would reduce the necessary PBFs for reproduction and survival of the spotted owl, therefore the Proposed Action may affect, and is likely to adversely affect spotted owl critical habitat." ER460. The Recovery Plan itself makes it explicit that "trade-offs that

[13] Referring to the East Cascades North Critical Habitat Unit and the ECN-7 sub-unit.

affect spotted owl recovery will need to be assessed **on the ground**, on a case-by-case basis with careful consideration given to the specific geographical and temporal context of a proposed action. . . Specific patch-level prescriptions are impossible to make in this Revised Recovery Plan given the tremendous variety in conditions and land management goals across the species' range." ER867 (emphasis added).

Second, neither a judge nor an agency can arbitrarily scale up the scope of analysis to dilute the significance of a site-specific project's potential impacts. This approach was just struck down in the District Court of Oregon, where the court found the BLM's "attempt to marginalize the effects of regeneration logging by measuring the harvest area against the 33,737-acre watershed around the Project area" was arbitrary and capricious. *Cascadia Wildlands v. Bureau of Land Management*, 2019 WL 4467008, *7-8 (September 18, 2019); see also *Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-37 (9th Cir.2001) (holding that an agency cannot try to "minimize" the environmental impact of an activity by simply adopting a scale of analysis so broad that it marginalizes the site-level impact of the activity on ecosystem health); *Brong*, 492 F.3d at 1130 (holding that the agency improperly diluted the effects of its proposed actions by averaging snag retention over too wide an area). In this instance the court, on its own volition, explicitly adopted an overly broad

geographic scale of analysis to dilute the significance of direct adverse impacts to owls and their critical habitat.

To the best of Appellants' knowledge, MHNF has never logged thousands of acres of mature and old growth forests in a single project, let alone in designated critical habitat that is currently suitable spotted owl NRF habitat. In the context of an ecosystem where all suitable habitat is essential to the recovery of the owls, the largest timber sale in MHNF's recent history, justified by highly controversial "restoration" claims, should not be evaluated on an expansive geographic scale that deliberately renders its impacts insignificant.

iii. Potentially significant cumulative impacts to Spotted Owls and Critical Habitat

In stark contrast to scaling up the analysis of direct impacts to avoid finding significance, the district court erred in upholding the Forest Service's approach to scaling down its evaluation of cumulative impacts to spotted owls and their critical habitat to the stand level. ER18 ("it is not irrational to evaluate the cumulative impact on NSO by looking at the Project area and the [1.2 mile] radius beyond the boundary of the Project area"). This approach highlights the internal dissonance regarding "context" in the district court's opinion, as well as defying both logic and law.

When determining whether a project will have a significant impact, agencies must consider "[w]hether an action is related to other actions with individually

insignificant but cumulatively significant impacts." 40 C.F.R. § 1508.27(b)(7). A cumulative impact is defined in NEPA's implementing regulations as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . .. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. If several actions have a cumulative environmental effect, "this consequence must be considered in an EIS." *N. Plains Resources Council v. Surface Transportation Bd*., 668 F.3d 1067, 1076 (9th Cir. 2011); *Blue Mountains*, 161 F.3d at 1214.

As noted above, the CCR Project is located within Critical Habitat sub-unit ECN-7. ER471. The CCR Project is the fourth, and by far the largest, timber sale the Forest Service planned in ECN-7 over the past five years. ER217. In the northern section of the sub-unit, the Dalles II project resulted in a degradation/loss of 575 acres of suitable habitat. *Id.* An additional 365 acres of suitable habitat were degraded by the salvage logging in the North Fork Mill Creek Timber sale. *Id.* 1,174 more acres of owl critical habitat are planned for removal in the Polallie Cooper Timber Sale. *Id.* None of these timber sales were included in the list of projects considered for cumulative impacts, despite being specifically named in comments on the draft EA. *See* ER217, 391 (list of projects considered). Combined with CCR, these projects remove more than 5% of all the suitable

habitat in a sub-unit in which all unoccupied and likely occupied areas were determined to be **essential** for the conservation of the species. 77 Fed. Reg 71876, 71929. The significance of this cumulative loss has never been analyzed.

As the purpose of analyzing cumulative impacts is to determine whether incremental direct actions combine with other actions to create significant impacts on a larger scale, the analysis must occur on a scale that adequately captures those impacts. Thus, the Council on Environmental Quality (CEQ) recognized that "the most devastating environmental effects may result not from the direct effects of a particular action, but from the combination of individually minor effects of multiple actions over time." CEQ, *Considering Cumulative Effects Under the [NEPA]*, at 1 (Jan. 1997).[14] A cumulative impacts analysis "must consider the interaction of multiple activities and cannot focus exclusively on the environmental impacts of an individual project." *Brong*, 492 F.3d at 1133, *citing KS Wild*, 387 F.3d at 998; (finding a cumulative effects analysis inadequate when "it only considers the effects of the very project at issue" and does not "take into account the combined effects that can be expected as a result of undertaking" multiple projects).

[14] http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf. Though the CEQ guidance documents are not necessarily binding, several courts have cited to them as a consideration in their decision. *See LOWD*, 2014 WL 6977611, at *7 (D. Or. Dec. 9, 2014); *Kern v. BLM*, 294 F.3d 1062,1078 (9th Cir. 2002).

The Ninth Circuit has, time and again, rejected NEPA analyses that unreasonably limit the geographic scope of a cumulative impacts analysis. *KS Wild*, 387 F.3d 989, *see also LOWD v. Connaughton*, 2014 WL 6977611, at *9-11 (USFS violated NEPA by failing to provide adequately explain why it limited the scope of its cumulative impacts analysis) ; *Kern v. BLM*, 284 F.3d 1062, 1078-79 (9th Cir. 2002) (rejecting EA that failed to consider cumulative impacts of other timber sales on BLM's Coos Bay District that were outside the delineated "analysis area"); *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9th Cir. 1990) (enjoining logging where the USFS failed to analyze the cumulative impacts of a proposed timber sale together with four other proposed sales throughout the same National Forest).

In *KS Wild*, the BLM planned four timber sale in the same critical habitat unit, all of which were likely to adversely affect northern spotted owls by removing a total of 1,881 acres of habitat. 387 F.3d at 997. Like the CCR EA, none of the cumulative effects analyses for the proposed timber sales included the total amount of habitat lost. Tellingly, this court found that even more important than failure to enumerate total habitat loss was the lack of any meaningful discussion about the **impact** of this cumulative loss of critical habitat on the owl. *Id.* The very same could be said about the CCR Project – while it is important to know the total amount of suitable habitat lost, it is even more important to know

what this loss means to the recovery of the spotted owl. If this court allows the USFS to restrict its cumulative impacts analysis to the project area and a miniscule buffer, it "would be easy to underestimate the cumulative impacts of the timber sales, and of other reasonably foreseeable future actions…Such a restricted analysis would impermissibly subject the decisionmaking process contemplated by NEPA to 'the tyranny of small decisions.'" *Kern v. BLM*, 284 F.3d at 1075-78.

In addition to the impermissibly small geographic scope of its cumulative effects analysis, the EA's vague and cursory conclusions that various undisclosed cumulative actions "have reduced the amount of suitable habitat [for owls] on the landscape" and will "continue to do so into the future" (ER468) are not "of high quality" and do not show that the Forest Service took a "hard look" at cumulative impacts. *See* 40 CFR § 1500.1(b). Such an analysis does not satisfy the admonition in *Neighbors of Cuddy Mountain* that "[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided." 137 F.3d 1372, 1380 (9th Cir. 1998).

iv. Proximity to Ecologically Critical Areas

Critical Habitat and Late-Successional Reserves are "ecologically critical areas" established to provide high-quality habitat for imperiled species like the northern spotted owl. 40 C.F.R. § 1508.27(b)(3); *Brong*, 492 F.3d at 1126-27.

The FONSI briefly states: "[t]here will be no significant effects on unique characteristics of the area" and runs through a list of land designations *not* affected while wholly ignoring logging in LSRs or federally designated Critical Habitat. ER107. These ecologically critical areas should have been evaluated as such when determining whether an EIS was warranted. *See cf. Cascadia Wildlands*, 937 F.Supp.2d at 1281-84 (proposed logging within Riparian Reserves, another protective NWFP land allocation, was an ecologically critical area for NEPA purposes, weighing in favor of an EIS).

v. Conclusion: An EIS is Required

Given that the TSPR agreement required that MHNF complete its NEPA analysis within one year, it is understandable that the Forest Service cut many corners, including the choice not to prepare an EIS. However, doing so was neither honest nor legal. Projects that may significantly affect the environment should be analyzed in an EIS, as the level of analysis required by an EIS is substantially more robust than that in an EA. Whereas NEPA regulations describe an EA as a "brief, concise document" the regulations include a detailed framework for analyzing all aspects of a proposed action in an EIS. *Compare* 40 C.F.R. § 1508.9(a) to §§ 1502.1-25. As described by this Court, an EIS weighs the significant potential negative impacts of the proposed action against the positive objectives of the project; ensures that decision-makers know that there is a risk of

significant environmental impact and take that impact into consideration; allows for additional study of key scientific issues; requires agencies to address opposing science; and provides a longer time period for public involvement, including public hearings. *Anderson v. Evans*, 314 F.3d at 1021. While the CCR Project EA was quite long, this does not correlate to providing the type of in-depth analysis and public participation required for an EIS. *Id.* ("Girth is not a measure of the analytical soundness of an environmental assessment. No matter how thorough, an EA can never substitute for preparation of an EIS, if the proposed action could significantly affect the environment.").

This is not simply an exercise in creating more paperwork; a more thorough, scientifically accurate analysis could lead to a final decision with more beneficial ecological and social outcomes. By requiring agencies to take a "hard look" at how the choices before them affect the environment, and then to place their data and conclusions before the public, NEPA relies upon democratic processes to ensure that "the most intelligent, optimally beneficial decision will ultimately be made." *Or. Natural Desert Ass'n. v. BLM*, 625 F.3d 1092, 1099-1100 (9th Cir. Or. 2010). The Forest Service's decision not to prepare an EIS for this highly controversial project, which is the largest timber sale on MHNF in memory and revives logging of ecologically critical mature and old growth forests, constitutes arbitrary and capricious decision-making under NEPA and the APA.

B. The Forest Service Violated NEPA by Failing to Take a Hard Look at Climate Change.

Despite the urgent threat of a changing climate, the Forest Service did not take a hard look at the intersection of the CCR Project and climate change. In scoping comments, Appellants presented a wealth of scientific information about the importance of Oregon's mature forests in regards to climate change, both as globally important carbon sinks and as providing refugia for imperiled species. ER581-86. The draft EA's brief analysis on climate change did not include this extensive information. Instead, it was cut and pasted from the MHNF's EA for a different timber sale (the Polallie Cooper Timber Sale), changing **only** the amount of affected acres from 2,373 acres for Polallie Cooper to 12,700 acres for CCR. ER225. In draft EA comments, Appellants suggested this cut and paste section be revised to include a more extensive discussion about the nexus of climate change and Oregon's forests, citing even more locally specific information about forests and climate change. ER654-79, 225-31. The final EA did not change to incorporate or address any of these public comments. ER499-500.

The Ninth Circuit established a rule in *Hapner v. Tidwell* that NEPA analyses must consider a project's "impact on global warming in proportion to its significance." 621 F.3d 1239, 1245 (9th Cir. 2010). As discussed in public comments, it is increasingly clear that National Forests in the Cascade Range of Oregon play a globally important role in regulating the carbon cycle. *See* ER581-6,

710. Because of the importance of mature Cascadian forests to the carbon cycle, local forest management decisions on MHNF have a disproportionately high impact on climate change. Indeed, a recent study found that decreasing logging on National Forests in the Pacific Northwest is one of the top regional land use strategies to mitigate climate change. ER835-40. Not only does commercial logging result in large direct carbon emissions from rapid decomposition of slash, chips, and degraded soil, it also decreases the forest's future ability to store carbon for up to a decade. ER230. In short, the impacts on accelerating climate change by logging mature trees in the CCR Project, require a harder look.

Also, the Forest Service failed to recognize that mature forests are the most resilient type of forest ecosystems, providing important cool habitat refugia for organisms stressed by a changing climate. A very recent California case discussed the government's failure to take a hard look at how a changing climate exacerbates the adverse impacts of the proposed project. *AquAlliance v. U.S. Bureau of Reclamation*, 287 F.Supp.3d 969, 1028 (E.D. Cal. 2018). The court found that failure to consider the impacts of climate change is a "failure to consider an important aspect of the problem" facing the proposed action. *Id.* at 1032 (*citing Wild Fish Conservancy v. Irving*, 221 F.Supp.3d 1224, 1233 (E.D. Wa. 2016). In the context of a rapidly changing climate, old-growth forests take on new

significance and logging thousands of acres of mature forests may have even greater impact than in the past.

C. The Forest Service Violated NEPA by Failing to Analyze a Reasonable Range of Alternatives.

NEPA requires that an agency "identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e), *see also Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d at 1217. The discussion of alternatives is intended to provide a "clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. §1502.14. This requirement is critical to serving NEPA's purpose of ensuring fully informed decisions and providing for meaningful public participation in environmental analyses and decision-making. *See* 40 C.F.R. § 1500.1(b), (c). The Forest Service's NEPA regulations do provide that, for projects with no unresolved conflicts concerning alternative uses of available resources, an EA need analyze only the proposed action and the "no action" alternative; however, this condition is clearly not applicable to the present case. 36 C.F.R. § 220.7(b)(2)(i). Thus, the question before the court is whether the Forest Service failed to meaningfully consider any reasonable alternatives to the Proposed Action. *W. Watersheds Project ("WWP") v. Abbey*, 719 F.3d 1035, 1049-1053 (9th Cir. 2013) ("The existence of a viable but unexamined alternative renders an [EA] inadequate.")

A court focuses on the stated purpose of a project to determine whether the Forest Service considered all appropriate and reasonable alternatives. *See Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1520 (9th Cir. 1992). The CCR Project's stated purpose in scoping was to "conduct vegetation restoration activities within the planning area to improve the health and vigor of forested stands while reducing the risk of human-caused fires spreading from high risk areas onto non-federal lands". ER948-49. This framing makes the restorative ecological goals of the project primary, with production of commercial timber as a byproduct. To achieve these restoration goals, Appellants repeatedly suggested the Forest Service consider alternatives that focus commercial logging in areas that are outside the natural fire regime and/or are not high-quality spotted owl suitable habitat and/or set a diameter limit on trees logged. *See* ER178-80, 616. Any of these proposed alternatives would result in more effective fuels reduction while also protecting critical owl habitat.

Despite the suggested alternatives, the Forest Service chose to consider only a single action alternative: the largest, most volume-driven commercial logging project the agency has undertaken on MHNF in memory, far away from communities that would benefit from fuels reduction. The only action alternative the Forest Service even briefly considered was decreasing the amount of logging in suitable spotted owl habitat, which was dismissed because it determined the

proposed action "strikes an appropriate balance" between providing wood products, forest resiliency, and protecting the spotted owl. ER104. This rationale was echoed by the district court, without any reference to the record or analysis independent from that in Defendant's briefs. ER22.

The Forest Service's claim to "strike a balance" between competing interests (e.g. producing timber volume and protecting spotted owl suitable habitat), is inconsistent with a Purpose and Need that explicitly makes increased ecological resiliency primary. Throughout the public-facing NEPA documents, and indeed as its defense to many of the other claims in this case, the Forest Service argues that adverse ecological impacts can be ignored because of the purported overriding long-term ecological benefits from logging. However, rather than consider alternatives that the record suggests would achieve greater ecological benefits while still producing forest products, it dismissed them. While the TSPR agreement and its timber target was never mentioned in the agency's Purpose and Need or its analysis of alternatives, it seems to influence the agency's decisions not to consider any alternatives that would decrease timber volume.

This "appropriate balance" rationale also does not demonstrate that Appellants' proffered alternatives were, in fact, infeasible. When other feasible alternatives also meet the project's purpose and need, they "should be considered in detail." *WWP*, 719 F.3d at 1052. Further, as other courts have recognized, an

alternative may not be disregarded merely because it does not offer "a complete solution to the problem." *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972); *Town of Matthews v. U.S. Dep't. of Transp*., 527 F. Supp. 1055, 1057-58 (W.D. N.C. 1981) (NEPA "does not permit the agency to eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multipurpose project.").

This scenario is again similar to *Or. Wild v. BLM*, where the BLM proposed to restore the forest by logging in mature forests that provided suitable spotted owl habitat. Plaintiffs argued the BLM failed to analyze viable alternatives to the proposed project, in particular an alternative that limited the project's variable retention harvest to trees younger than 80 years old. 2015 WL 1190131, *5-6. The district court agreed, finding that this proposed alternative "appears reasonable in light of the project's purpose and need." *Id.* Similarly, in *Conservation Congress v. USFS*, the district court found that the Forest Service violated NEPA by failing to consider an alternative with an upper-diameter limit, as it was reasonable to suggest that retaining the larger trees would meet the agency's stated purpose of fuels reduction. 235 F.Supp.3d 1189, 1211 (2017) (vacated after the Forest Service thoroughly analyzed multiple alternatives on remand).

The only alternative to the proposed action considered in any detail is "No Action." All parties agree that sapling and plantation thinning meets the Project's Purpose and Need, and this would not be met if the agency selected "no action." A very recent district court opinion for a timber sale in southern Oregon sheds light on the inability of "no action" to be considered a viable alternative in such situations. *Klamath Siskiyou Wildlands Center v. BLM*, 2019 WL 2774317 (D.Or. July 2, 2019) (adopting Magistrate's Recommendations). *See also* CR37 (Recommendations filed as supplemental authority). Similar to the CCR Project, in *Klamath Siskiyou* all parties agreed that some forest management must take place to remedy the legacy of fire exclusion. With that baseline agreement, "the BLM's consideration of one preferred action and a no-action alternative does not satisfy NEPA's bare requirement for a brief discussion of reasonable alternatives because the no-action alternative was not in fact reasonable." Rec. at 11. In contrast, the court found there was nothing in the record that showed the plaintiff's proposed Ecological Forestry alternative to retain older legacy trees was unfeasible, ineffective or inconsistent with other policy objectives. Rec. at 13. Likewise, nothing in the CCR Record shows that Appellants' suggested alternatives were not reasonable ways to meet the Purpose and Need.

By only analyzing one action alternative, the Forest Service missed the opportunity to redesign the CCR Project to better meet its Purpose and Need and failed to conduct a legally adequate alternatives analysis.

3. THE FOREST SERVICE VIOLATED NFMA.

The CCR Project must demonstrate consistency with the MHNF Forest Plan, as amended by the NWFP. 16 U.S.C. § 1604(i). NFMA requires that "all management activities undertaken by the Forest Service must comply with the forest plan." *Native Ecosystems Council v. Tidwell*, 599 F.3d 926, 932 (9th Cir. 2010) ("In order to ensure compliance with the forest plan and the [NFMA], the Forest Service must conduct an analysis of each 'site specific' action, such as a timber sale, to ensure that the action is consistent with the forest plan.") (internal citations omitted). To document compliance with this statutory requirement, each "project or activity approval document must describe how the project or activity is consistent with applicable plan components." 36 C.F.R. § 219.15(d).

A. Logging in the White River LSR does not comply with the NWFP.

Late Successional Reserves are managed to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species including the northern spotted owl. ER943-5. Active management in LSRs for risk-reduction "shall focus on younger stands." ER947. Logging activity in older stands may be appropriate

under very strict parameters, such as when proposed management activities will clearly result in long-term maintenance of habitat, the activities are clearly needed to reduce risk, and the activities will not prevent the LSR from playing an effective role in the objectives for which LSRs were established. ER946-7. All thinning or silvicultural treatments inside LSRs must be reviewed by the Regional Ecosystem Office to ensure treatments are beneficial to the creation of late-successional forest conditions. ER946. The CCR Project's proposed logging of mature, overstory trees in the LSR violates all these requirements. This is not surprising, since protecting forests with big, old trees is precisely why LSRs were created. What *is* surprising is how little attention the Forest Service, and the district court, gave the issue.

First, the MHNF did not consult with the Regional Ecosystem Office about logging LSRs in the CCR Project. This failure was not disputed by the Defendant, nor addressed by the district court, and on its face violates the NWFP.

Second, it is the Forest Service's burden to demonstrate in the record that the proposed logging is *clearly* needed and will *not* prevent the LSR from providing the habitat for which it was created. Commercial logging is proposed for several units within the White River LSR that do not meet the narrow conditions for logging. Specifically, units 3, 5, 7, 8L, 9L, and 457 cover 179 acres of mature forest stands from 96 to 229 years old. ER190-2. The Forest Service has not explained why these units, some of which have already been thinned so that only

Douglas fir and Ponderosa pine overstory trees remain, need to be logged to improve late successional forest conditions. *Id.*

Some LSR units currently have a canopy cover around 50% and are on a trajectory to progress naturally towards more complex, late successional stands. However, the proposed average post-treatment canopy closure in the LSR units would be **35-40%,** well below the canopy cover necessary for spotted owl habitat. ER126, 128, 150. Because so much canopy within these units is created by large trees, logging these stands would necessarily remove large, mature trees, which is inconsistent with both reducing fire risk and promoting late-successional structure and owl habitat. This unambiguously interferes with the purpose for which the LSR was established. By failing to demonstrate consistency with these NWFP requirements, the agency violated NFMA. 16 U.S.C. § 1604(i); 36 C.F.R. § 219.15(d).

The district court generally deferred to the "USFS . . . claim that the Project will serve the objectives of the LSR by preventing major disturbances such as fire, disease, and insect infestation." ER24. The court repeats the litigation assertions of Defense Counsel, but not the Forest Service in the record, as the agency never asserts that logging is able to "prevent" fire, disease or insect infestation and does not clearly articulate a rationale for logging in the LSR. See ER109-10 (DN provides no rationale for logging in LSRs). Regarding compliance with the LSR

Assessment, the court acknowledges there are several types of stands with different targets for canopy closure, but narrows its analysis to open park-like stands, finding that because "Open Park-Like" has a Desired Future Condition (DFC) of 25-40% canopy cover, logging down to 35% canopy cover complies with the Assessment guidelines. This limited scope ignores the "Cathedral" stands, with a DFC of 60-90% canopy cover, and the "Open Intolerant Multi-story," with a DFC of >40-<60% canopy and the neither the Forest Service, nor the court, ever articulated why this canopy reduction was necessary to protect and enhance conditions of late-successional and old-growth forest ecosystems. *See* ER903.

B. The CCR Project is Inconsistent with Forest Plan Snag Retention Standards.

Snags (standing dead trees) are used extensively by cavity-nesting birds and mammals such as woodpeckers, nuthatches, chickadees, squirrels, red tree voles, and American marten. *Brong*, 492 F.3d at 1128. Because of their importance to birds and wildlife, the MHNF Forest Plan requires that snags be maintained to support 60% of maximum biological potential of cavity nesting species. ER915. The only time the Forest Service discusses compliance with this standard is in the draft EA, which acknowledged an exemption from the Forest Plan is necessary, as the snag density standard "cannot be met because of . . . on-the-ground conditions present within the stands." ER916-17. On average, the proposed treatment units are currently far below Forest Plan standards for snags (ER459) and the CCR Project

will result in both a direct, immediate loss of existing snags because of safety requirements for logging operations and other incidental felling, increased susceptibility to wind damage and snow breakage, and a continuing deficit in snag recruitment as compared to "no action." ER927. These are not disputed facts.

In the context of an already snag-depleted ecosystem, increasing the snag deficit for decades does not comply with the LRMP. While it is possible for the Forest Service to exempt itself from complying with some Forest Plan standards, it must analyze the impact of failing to comply with that standard and document the exemption in its NEPA analysis and DN. ER914. Despite the draft EA's acknowledgement and Appellants raising this issue in the public comment process, neither the Final EA nor the DN address consistency with FW-215. See ER109 (approving exemptions for other LRMP Standards). Because the Forest Service did not exempt a project from the standard, and the project does not include actions that will meet the standard, e.g. by actively creating more snags on the landscape, it violates NFMA.

In its decision, the district court recognized that all parties agree the "treatment area currently does not meet the Standard, and the area will not meet the Standard after thinning." ER25. However, the court misunderstood the legal argument. Appellants do not ask "whether the Project will violate the Snag Retention Standard by removing snags or preventing the creation of snags", as all

parties acknowledge the standard is not met. Appellants' argue that when a project does not meet a Forest Plan standard, the agency must either disclose this failure and go through the process necessary to exempt it from the standard, or find a way to comply with the standard. In this case, the Forest Service did neither.

Finally, the district court's reasoning that the logging will improve forest health and lead to a larger number of snags in the future is contrary both to the record ("no action" results in far more snags, ER467) and to common sense. Snags, after all, are made by trees dying from insects, disease, and other disturbance. By the Forest Service's own logic, if its actions remove the trees that would have otherwise died from competition while also increasing the remaining trees' resilience to natural disturbance, there will be far fewer snags over the long-term. As this court noted, "[s]nag removal may result in long-term influences on forest stands because large snags are not produced in natural stands until trees become large and begin to die from natural mortality." *Brong*, 492 F.3d at 1128.

VII. CONCLUSION

The specific claims in this case betoken a structural problem: the agency's lack of transparency. Scientific consensus shows that the trees needed to produce large amounts of timber volume are the same trees that are essential for forests' fire resiliency and old forest dependent wildlife. To support its contention that this project was restorative in its entirety, the Forest Service ignored or obscured the

body of science that contradicts its conclusions. In doing so, it not only violated NEPA, but also the public's trust. See e.g. *Dept. of Commerce v. New York*, 588 U.S. __ (2019).

For these reasons, Appellants respectfully request that this Court reverse the judgment of the district court, and remand with instructions to vacate the CCR Project Decision Notice and remand the matter back to the Forest Service to cure the legal violations found herein.

Respectfully submitted this 27th day of September, 2019.

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PROOF OF SERVICE

I hereby certify that on September 27, 2019, I electronically filed the foregoing Opening Brief of Appellant with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit using the appellate CM/ECF system.

I further certify that I filed true and correct copies of Appellant's Excerpts of Record (Volumes I-V) simultaneously using the appellate CM/ECF system.

Participants in the case who are registered CM/ECF users will be served by the appellate CM/ECF system. There are no unregistered users participating in this case.

/s/ Brenna Bell

UNITED STATES COURT OF APPEALS
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UNITED STATES COURT OF APPEALS
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16 U.S.C. § 1532 – Endangered Species Act Definitions

(3) The terms "conserve", "conserving", and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

(5)(A) The term "critical habitat" for a threatened or endangered species means--

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

(B) Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.

(C) Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

(6) The term "endangered species" means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.

(20) The term "threatened species" means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

16 U.S.C. § 1604. National Forest System land and resource management plans

(i) CONSISTENCY OF RESOURCE PLANS, PERMITS, CONTRACTS, AND OTHER INSTRUMENTS WITH LAND MANAGEMENT PLANS; REVISION

Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans. Those resource plans and permits, contracts, and other such instruments currently in existence shall be revised as soon as practicable to be made consistent with such plans. When land management plans are revised, resource plans and permits, contracts, and other instruments, when necessary, shall be revised as soon as practicable. Any revision in present or future permits, contracts, and other instruments made pursuant to this section shall be subject to valid existing rights.

36 C.F.R. §219.15 Project and activity consistency with the plan.

(a) Application to existing authorizations and approved projects or activities. Every decision document approving a plan, plan amendment, or plan revision must state whether authorizations of occupancy and use made before the decision document may proceed unchanged. If a plan decision document does not expressly allow such occupancy and use, the permit, contract, and other authorizing instrument for the use and occupancy must be made consistent with the plan, plan amendment, or plan revision as soon as practicable, as provided in paragraph (d) of this section, subject to valid existing rights.

(b) Application to projects or activities authorized after plan decision. Projects and activities authorized after approval of a plan, plan amendment, or plan revision must be consistent with the plan as provided in paragraph (d) of this section.

(c) Resolving inconsistency. When a proposed project or activity would not be consistent with the applicable plan components, the responsible official shall take one of the following steps, subject to valid existing rights:

(1) Modify the proposed project or activity to make it consistent with the applicable plan components;

(2) Reject the proposal or terminate the project or activity;

(3) Amend the plan so that the project or activity will be consistent with the plan as amended; or

(4) Amend the plan contemporaneously with the approval of the project or activity so that the project or activity will be consistent with the plan as amended. This amendment may be limited to apply only to the project or activity.

(d) Determining consistency. Every project and activity must be consistent with the applicable plan components. A project or activity approval document must describe how the project or activity is consistent with applicable plan components developed or revised in conformance with this part by meeting the following criteria:

(1) Goals, desired conditions, and objectives. The project or activity contributes to the maintenance or attainment of one or more goals, desired conditions, or objectives, or does not foreclose the opportunity to maintain or achieve any goals, desired conditions, or objectives, over the long term.

(2) Standards. The project or activity complies with applicable standards.

(3) Guidelines. The project or activity:

(i) Complies with applicable guidelines as set out in the plan; or

(ii) Is designed in a way that is as effective in achieving the purpose of the applicable guidelines (§219.7(e)(1)(iv)).

(4) Suitability. A project or activity would occur in an area:

(i) That the plan identifies as suitable for that type of project or activity; or

(ii) For which the plan is silent with respect to its suitability for that type of project or activity.

(e) Consistency of resource plans within the planning area with the land management plan. Any resource plans (for example, travel management plans) developed by the Forest Service that apply to the resources or land areas within the planning area must be consistent with the plan components. Resource plans developed prior to plan decision must be evaluated for consistency with the plan and amended if necessary.

36 C.F.R. §220.7 Forest Service environmental assessment and decision notice.

(a) Environmental assessment. An environmental assessment (EA) shall be prepared for proposals as described in §220.4(a) that are not categorically excluded from documentation (§220.6) and for which the need of an EIS has not been determined (§220.5). An EA may be prepared in any format useful to facilitate planning, decisionmaking, and public disclosure as long as the requirements of paragraph (b) of this section are met. The EA may incorporate by reference information that is reasonably available to the public.

(b) An EA must include the following:

(1) Need for the proposal. The EA must briefly describe the need for the project.

(2) Proposed action and alternative(s). The EA shall briefly describe the proposed action and alternative(s) that meet the need for action. No specific number of alternatives is required or prescribed.

(i) When there are no unresolved conflicts concerning alternative uses of available resources (NEPA, section 102(2)(E)), the EA need only analyze the proposed action and proceed without consideration of additional alternatives.

(ii) The EA may document consideration of a no-action alternative through the effects analysis by contrasting the impacts of the proposed action and any alternative(s) with the current condition and expected future condition if the proposed action were not implemented.

(iii) The description of the proposal and alternative(s) may include a brief description of modifications and incremental design features developed through the analysis process to develop the alternatives considered. The documentation of these incremental changes to a proposed action or alternatives may be incorporated by reference in accord with 40 C.F.R. 1502.21.

(iv) The proposed action and one or more alternatives to the proposed action may include adaptive management. An adaptive management proposal or alternative must clearly identify the adjustment(s) that may be made when monitoring during project implementation indicates that the action is not having its intended effect, or is causing unintended and undesirable effects. The EA must disclose not only the effect of the proposed action or alternative but also the effect of the adjustment. Such proposal or alternative must also describe the monitoring that would take place to inform the responsible official whether the action is having its intended effect.

40 C.F.R. §1500.2 Policy.

Federal agencies shall to the fullest extent possible:

(a) Interpret and administer the policies, regulations, and public laws of the United States in accordance with the policies set forth in the Act and in these regulations.

(b) Implement procedures to make the NEPA process more useful to decisionmakers and the public; to reduce paperwork and the accumulation of extraneous background data; and to emphasize real environmental issues and alternatives. Environmental impact statements shall be concise, clear, and to the point, and shall be supported by evidence that agencies have made the necessary environmental analyses.

(c) Integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively.

(d) Encourage and facilitate public involvement in decisions which affect the quality of the human environment.

(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.

(f) Use all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the

human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.

40 C.F.R. § 1502: Environmental Impact Statement

§1502.2 Implementation.

To achieve the purposes set forth in §1502.1 agencies shall prepare environmental impact statements in the following manner:

(a) Environmental impact statements shall be analytic rather than encyclopedic.

(b) Impacts shall be discussed in proportion to their significance. There shall be only brief discussion of other than significant issues. As in a finding of no significant impact, there should be only enough discussion to show why more study is not warranted.

(c) Environmental impact statements shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and with these regulations. Length should vary first with potential environmental problems and then with project size.

(d) Environmental impact statements shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102(1) of the Act and other environmental laws and policies.

(e) The range of alternatives discussed in environmental impact statements shall encompass those to be considered by the ultimate agency decisionmaker.

(f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision (§1506.1).

(g) Environmental impact statements shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.

§1502.3 Statutory requirements for statements.

As required by sec. 102(2)(C) of NEPA environmental impact statements (§1508.11) are to be included in every recommendation or report.

On proposals (§1508.23).

For legislation and (§1508.17).

Other major Federal actions (§1508.18).

Significantly (§1508.27).

Affecting (§§1508.3, 1508.8).

The quality of the human environment (§1508.14).

§1502.4 Major Federal actions requiring the preparation of environmental impact statements.

(a) Agencies shall make§1502.3 Statutory requirements for statements. sure the proposal which is the subject of an environmental impact statement is properly defined. Agencies shall use the criteria for scope (§1508.25) to determine which proposal(s) shall be the subject of a particular statement. Proposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.

(b) Environmental impact statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (§1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking.

(c) When preparing statements on broad actions (including proposals by more than one agency), agencies may find it useful to evaluate the proposal(s) in one of the following ways:

(1) Geographically, including actions occurring in the same general location, such as body of water, region, or metropolitan area.

(2) Generically, including actions which have relevant similarities, such as common timing, impacts, alternatives, methods of implementation, media, or subject matter.

(3) By stage of technological development including federal or federally assisted research, development or demonstration programs for new technologies which, if applied, could significa§1502.3 Statutory requirements for statements.ntly affect the quality of the human environment. Statements shall be prepared on such programs and shall be available before the program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives.

(d) Agencies shall as appropriate employ scoping (§1501.7), tiering (§1502.20), and other methods listed in §§1500.4 and 1500.5 to relate broad and narrow actions and to avoid duplication and delay.

§1502.5 Timing.

An agency shall commence preparation of an environmental impact statement as close as possible to the time the agency is developing or is presented with a proposal (§1508.23) so that preparation can be completed in time for the final statement to be included in any recommendation or report on the proposal. The statement shall be prepared early enough so that it can serve practically as an important contribution to the decisionmaking process and will not be used to rationalize or justify decisions already made (§§1500.2(c), 1501.2, and 1502.2). For instance:

(a) For projects directly undertaken by Federal agencies the environmental impact statement shall be prepared at the feasibility analysis (go-no go) stage and may be supplemented at a later stage if necessary.

(b) For applications to t§1502.3 Statutory requirements for statements.he agency appropriate environmental assessments or statements shall be commenced no later than immediately after the application is received. Federal agencies are encouraged to begin preparation of such assessments or statements earlier, preferably jointly with applicable State or local agencies.

(c) For adjudication, the final environmental impact statement shall normally precede the final staff recommendation and that portion of the public hearing related to the impact study. In appropriate circumstances the statement may follow preliminary hearings designed to gather information for use in the statements.

(d) For informal rulemaking the draft environmental impact statement shall normally accompany the proposed rule.

§1502.6 Interdisciplinary preparation.

Environmental impact statements shall be prepared using an inter-disciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts (section 102(2)(A) of the Act). The disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process (§1501.7).

§1502.7 Page limits.

The text of final environmental impact statements (e.g., paragraphs (d) through (g) of §1502.10) shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages.

§1502.8 Writing.

Environmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts.

1502.9 Draft, final, and supplemental statements.

Except for proposals for legislation as provided in §1506.8 environmental impact statements shall be prepared in two stages and may be supplemented.

(a) Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process. The lead agency shall work with the cooperating agencies and shall obtain comments as required in part 1503 of this chapter. The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action.

(b) Final environmental impact statements shall respond to comments as required in part 1503 of this chapter. The agency shall discuss at appropriate points in the final statement any responsible opposing view which was not adequately discussed in the draft statement and shall indicate the agency's response to the issues raised.

(c) Agencies:

(1) Shall prepare supplements to either draft or final environmental impact statements if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or

(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

(2) May also prepare supplements when the agency determines that the purposes of the Act will be furthered by doing so.

(3) Shall adopt procedures for introducing a supplement into its formal administrative record, if such a record exists.

(4) Shall prepare, circulate, and file a supplement to a statement in the same fashion (exclusive of scoping) as a draft and final statement unless alternative procedures are approved by the Council.

§1502.10 Recommended format.

Agencies shall use a format for environmental impact statements which will encourage good analysis and clear presentation of the alternatives including the proposed action. The following standard format for environmental impact statements should be followed unless the agency determines that there is a compelling reason to do otherwise:

(a) Cover sheet.

(b) Summary.

(c) Table of contents.

(d) Purpose of and need for action.

(e) Alternatives including proposed action (sections 102(2)(C)(iii) and 102(2)(E) of the Act).

(f) Affected environment.

(g) Environmental consequences (especially sections 102(2)(C)(i), (ii), (iv), and (v) of the Act).

(h) List of preparers.

(i) List of Agencies, Organizations, and persons to whom copies of the statement are sent.

(j) Index.

(k) Appendices (if any).

If a different format is used, it shall include paragraphs (a), (b), (c), (h), (i), and (j), of this section and shall include the substance of paragraphs (d), (e), (f), (g), and (k) of this section, as further described in §§1502.11 through 1502.18, in any appropriate format.

§1502.11 Cover sheet.

The cover sheet shall not exceed one page. It shall include:

(a) A list of the responsible agencies including the lead agency and any cooperating agencies.

(b) The title of the proposed action that is the subject of the statement (and if appropriate the titles of related cooperating agency actions), together with the State(s) and county(ies) (or other jurisdiction if applicable) where the action is located.

(c) The name, address, and telephone number of the person at the agency who can supply further information.

(d) A designation of the statement as a draft, final, or draft or final supplement.

(e) A one paragraph abstract of the statement.

(f) The date by which comments must be received (computed in cooperation with EPA under §1506.10).

The information required by this section may be entered on Standard Form 424 (in items 4, 6, 7, 10, and 18).

§1502.12 Summary.

Each environmental impact statement shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives). The summary will normally not exceed 15 pages.

§1502.13 Purpose and need.

The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

§1502.14 Alternatives including the proposed action.

This section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (§1502.15) and the Environmental Consequences (§1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

§1502.15 Affected environment.

The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an environmental impact statement.

§1502.16 Environmental consequences.

This section forms the scientific and analytic basis for the comparisons under §1502.14. It shall consolidate the discussions of those elements required by sections 102(2)(C)(i), (ii), (iv), and (v) of NEPA which are within the scope of the statement and as much of section 102(2)(C)(iii) as is necessary to support the comparisons. The discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented. This section should not duplicate discussions in §1502.14. It shall include discussions of:

(a) Direct effects and their significance (§1508.8).

(b) Indirect effects and their significance (§1508.8).

(c) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned. (See §1506.2(d).)

(d) The environmental effects of alternatives including the proposed action. The comparisons under §1502.14 will be based on this discussion.

(e) Energy requirements and conservation potential of various alternatives and mitigation measures.

(f) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.

(g) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.

(h) Means to mitigate adverse environmental impacts (if not fully covered under §1502.14(f)).

[43 FR 55994, Nov. 29, 1978; 44 FR 873, Jan. 3, 1979]

§1502.17 List of preparers.

The environmental impact statement shall list the names, together with their qualifications (expertise, experience, professional disciplines), of the persons who were primarily responsible for preparing the environmental impact statement or significant background papers, including basic components of the statement (§§1502.6 and 1502.8). Where possible the persons who are responsible for a particular analysis, including analyses in background papers, shall be identified. Normally the list will not exceed two pages.

§1502.18 Appendix.

If an agency prepares an appendix to an environmental impact statement the appendix shall:

(a) Consist of material prepared in connection with an environmental impact statement (as distinct from material which is not so prepared and which is incorporated by reference (§1502.21)).

(b) Normally consist of material which substantiates any analysis fundamental to the impact statement.

(c) Normally be analytic and relevant to the decision to be made.

(d) Be circulated with the environmental impact statement or be readily available on request.

§1502.19 Circulation of the environmental impact statement.

Agencies shall circulate the entire draft and final environmental impact statements except for certain appendices as provided in §1502.18(d) and unchanged statements as provided in §1503.4(c). However, if the statement is unusually long, the agency may circulate the summary instead, except that the entire statement shall be furnished to:

(a) Any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved and any appropriate Federal, State or local agency authorized to develop and enforce environmental standards.

(b) The applicant, if any.

(c) Any person, organization, or agency requesting the entire environmental impact statement.

(d) In the case of a final environmental impact statement any person, organization, or agency which submitted substantive comments on the draft.

If the agency circulates the summary and thereafter receives a timely request for the entire statement and for additional time to comment, the time for that requestor only shall be extended by at least 15 days beyond the minimum period.

§1502.20 Tiering.

Agencies are encouraged to tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review (§1508.28). Whenever a broad environmental impact statement has been prepared (such as a program or policy statement) and a subsequent statement or environmental assessment is then prepared on an action included within the entire program or policy (such as a site specific action) the subsequent statement or environmental assessment need only summarize the issues discussed in the broader statement and incorporate discussions from the broader statement by reference and shall concentrate on the issues specific to the subsequent action. The subsequent document shall state where the earlier document is available. Tiering may also be appropriate for different stages of actions. (Section 1508.28).

§1502.21 Incorporation by reference.

Agencies shall incorporate material into an environmental impact statement by reference when the effect will be to cut down on bulk without impeding agency and public review of the action. The incorporated material shall be cited in the statement and its content briefly described. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment. Material based on proprietary data which is itself not available for review and comment shall not be incorporated by reference.

§1502.22 Incomplete or unavailable information.

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

(a) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.

(b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement:

(1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; (3) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and (4) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, “reasonably foreseeable” includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

(c) The amended regulation will be applicable to all environmental impact statements for which a Notice of Intent (40 C.F.R. 1508.22) is published in the Federal Register on or after May 27, 1986. For environmental impact statements in

progress, agencies may choose to comply with the requirements of either the original or amended regulation.

[51 FR 15625, Apr. 25, 1986]

§1502.23 Cost-benefit analysis.

If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.

§1502.24 Methodology and scientific accuracy.

Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement. An agency may place discussion of methodology in an appendix.

§1502.25 Environmental review and consultation requirements.

(a) To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), and other environmental review laws and executive orders.

(b) The draft environmental impact statement shall list all Federal permits, licenses, and other entitlements which must be obtained in implementing the proposal. If it is uncertain whether a Federal permit, license, or other entitlement is necessary, the draft environmental impact statement shall so indicate.

40 C.F.R. § 1508 – Terminology and Index

§1508.7 Cumulative impact.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

§1508.8 Effects.

Effects include:

(a) Direct effects, which are caused by the action and occur at the same time and place.

(b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

§1508.9 Environmental assessment.

Environmental assessment:

(a) Means a concise public document for which a Federal agency is responsible that serves to:

(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 the Act when no environmental impact statement is necessary.

(3) Facilitate preparation of a statement when one is necessary.

(b) Shall include brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

§1508.13 Finding of no significant impact.

Finding of no significant impact means a document by a Federal agency briefly presenting the reasons why an action, not otherwise excluded (§1508.4), will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. It shall include the environmental assessment or a summary of it and shall note any other environmental documents related to it (§1501.7(a)(5)). If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference.

§1508.27 Significantly.

Significantly as used in NEPA requires considerations of both context and intensity:

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

(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 with significant effects or represents a decision in principle about a future consideration.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

(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 Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

(9) The degree to which the 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.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

[43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979]

Oregon, and comprises only Federal lands managed by the BLM and the USFS under the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south connectivity between subunits.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 86 percent of the area of WCS–4 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

WCS–5. The WCS–5 subunit consists of approximately 356,415 ac (144,236 ha) in Lane and Douglas Counties, Oregon, and comprises only Federal lands managed by the USFS under the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south and east-west connectivity between subunits and critical habitat units.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 83 percent of the area of WCS–5 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

WCS–6. The WCS–6 subunit consists of approximately 99,558 ac (40,290 ha) in Lane, Klamath, and Douglas Counties, Oregon, and is managed by the BLM and the USFS as directed by the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest and competition with barred owls. This subunit is expected to function primarily for east-west connectivity between subunits and critical habitat units, and between the Oregon coast and the western Cascades.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 97 percent of the area of WCS–6 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

Unit 7: East Cascades North (ECN)

Unit 7 contains 1,345,523ac (557,002 ha) and nine subunits. This unit consists of the eastern slopes of the Cascade range, extending from the Canadian border south to the Deschutes National Forest near Bend, OR. Terrain in portions of this region is glaciated and steeply dissected. This region is characterized by a continental climate (cold, snowy winters and dry summers). High-frequency, low-intensity fire regimes occur at lower elevations, mid elevations have mixed-severity regimes, and high elevations have high-severity regimes. Increased precipitation from marine air passing east through Snoqualmie Pass and the Columbia River has resulted in an increase of moist forest conditions in this region (Hessburg *et al.* 2000b, p. 165). In Washington, ponderosa pine and Douglas-fir forest are dominant at low elevations, Douglas-fir/grand fir mixed-conifer forest are characteristic of mid-elevations, and higher elevations support forests of silver fir, hemlock, and subalpine fir. The terrain is highly dissected and mountainous. The terrain and ecology are different on the southern portion of the unit, where ponderosa pine predominates on flat terrain at low elevations, and owl habitat is restricted to buttes and the slopes of the Cascade Range in forests of Douglas-fir, grand/white fir, and true firs. There is substantially less habitat in the Deschutes area of Oregon compared to the area north of Sisters, Oregon, and into Washington. The bulk of owls in this Unit are in Washington.

Forest composition, particularly the presence of grand fir and western larch, distinguishes this modeling region from the southern section of the eastern Cascades. While ponderosa pine forest dominates lower and middle elevations in both this and the southern section, the northern section supports grand fir and Douglas-fir habitat at middle elevations. Dwarf mistletoe provides an important component of nesting habitat, enabling northern spotted owls to nest within stands of relatively younger and smaller trees.

Subunit Descriptions—Unit 7

ECN–1. The ECN–1 subunit consists of approximately 101,661 ac (41,141 ha) in Whatcom, Skagit, and Okanogan Counties, Washington, and comprises lands managed by USFS. The USFS manages 60,173 ac (24,351 ha) as Late-successional Reserves to maintain functional, interactive, late-successional and old-growth forest ecosystems and 22,802 ac (9,228 ha) under the matrix land use allocation where multiple uses

occur, including most timber harvest and other silvicultural activities. Threats in this subunit include current and past timber harvest; competition with barred owls; removal or modification of habitat by forest fires, insects, and diseases; steep topography with high-elevation ridges that separate relatively small, linear strips of suitable habitat in valley bottoms; and location at the northeastern limit of the range of the subspecies. This subunit is expected to provide demographic support of the overall population and maintain the subspecies distribution in the northeastern portion of its range. ECN–1 is located primarily in the watershed of the Methow River and includes a small portion of the upper Skagit River watershed. It is bounded on the north by the international boundary with British Columbia, Canada.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 41 percent of the area of ECN–1 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–2. The ECN–2 subunit consists of approximately 60,128 ac (24,333 ha) in Chelan County, Washington, and comprises lands managed by USFS. The USFS manages 35,835 ac (14,502 ha) as Late-successional Reserves to maintain functional, interactive, late-successional and old-growth forest ecosystems and 17,545 ac (7,100 ha) under the matrix land use allocation where multiple uses occur, including most timber harvest and other silvicultural activities. Threats in this subunit include current and past timber harvest; competition with barred owls; steep topography with high-elevation ridges that separate relatively small, linear strips of suitable habitat in valley bottoms; the combination of Lake Chelan and the Sawtooth Mountains acting as a barrier to dispersal; and removal or modification of habitat by forest fires, insects, and diseases. This subunit is expected to provide demographic support of the overall population. ECN–2 is located primarily in the watersheds of the Chelan and Entiat Rivers.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 34 percent of the area of ECN–2 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–3. The ECN–3 subunit consists of approximately 301,219 ac (121,899 ha) in Chelan County, Washington, and comprises lands managed by the USFS and private landowners. The USFS manages 187,103 ac (75,718 ha) as Late-successional Reserves to maintain functional, interactive, late-successional and old-growth forest ecosystems and 114,117 ac (46,181 ha) under the matrix land use allocation where multiple uses occur, including most timber harvest and other silvicultural activities. Threats in this subunit include current and past timber harvest, competition with barred owls, and removal or modification of habitat by forest fires, insects, and diseases. This subunit is expected to provide demographic support of the overall population. ECN–3 is located primarily in the watershed of the Wenatchee River. In this subunit, we have excluded private lands and lands covered under the Washington Department of Natural Resources State Lands HCP.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 71 percent of the area of ECN–3 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–4. The ECN–4 subunit consists of approximately 222,818 ac (90,171 ha) in Kittitas County, Washington, and comprises lands managed by the USFS and the State of Washington. The USFS manages 99,641 ac (40,323 ha) as Late-successional Reserves to maintain functional, interactive, late-successional, and old-growth forest ecosystems and 118,676 ac (48,027 ha) under the matrix land use allocation where multiple uses occur, including most timber harvest and other silvicultural activities. The Washington Department of Fish and Wildlife manages 4,498 ac (1,820 ha). Threats in this subunit include current and past timber harvest, competition with barred owls, and removal or modification of habitat by forest fires, insects, and diseases. This subunit is expected to provide demographic support of the overall population. This subunit also has a key role in maintaining connectivity between northern spotted owl populations, both north to south in the East Cascades North Unit and west to east between the West and East Cascades units. This role is shared with the WCN–2 subunit and the WCC–1 subunit to the west. ECN–4 is located primarily in the Upper Yakima River watershed. In this subunit, we have excluded private lands and lands covered under the Washington Department of Natural Resources State Lands HCP and the Plum Creek Timber Central Cascades HCP.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 78 percent of the area of ECN–4 was covered by verified

northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–5. The ECN–5 subunit consists of approximately 201,108 ac (81,415 ha) in Kittitas and Yakima Counties, Washington, and comprises lands managed by the USFS and the State of Washington. The USFS manages 115,289 ac (46,656 ha) as Late-successional Reserves to maintain functional, interactive, late-successional, and old-growth forest ecosystems and 83,849 ac (33,933 ha) under the matrix land use allocation where multiple uses occur, including most timber harvest and other silvicultural activities. Threats in this subunit include current and past timber harvest, competition with barred owls, and removal or modification of habitat by forest fires, insects, and diseases. This subunit is expected to provide demographic support of the overall population. ECN–5 is located primarily in the watershed of the Naches River. In this subunit, we have excluded from final critical habitat designation lands covered under the Washington Department of Natural Resources State Lands HCP, the Plum Creek Timber Central Cascades HCP, and private lands.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 85 percent of the area of ECN–5 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–6. The ECN–6 subunit consists of approximately 81,852 ac (33,124 ha) in Skamania, Yakima, and Klickitat Counties, Washington, and comprises lands managed by the USFS and the State of Washington. The USFS manages 32,400 ac (13,112 ha) as Late-successional Reserves to maintain functional, interactive, late-successional, and old-growth forest ecosystems; and 49,452 ac (20,012 ha) under the matrix land use allocation where multiple uses occur, including most timber harvest and other silvicultural activities. Threats in this subunit include current and past timber harvest, competition with barred owls, and the Columbia River as an impediment to northern spotted owl dispersal. This subunit is expected to provide demographic support of the overall population. ECN–6 is located primarily in the watersheds of the Klickitat and White Salmon Rivers, and is bounded on the south by the Columbia River. In this subunit, we have excluded lands covered under the Washington Department of Natural Resources State Lands HCP as well as private lands from the final designation.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 88 percent of the area of ECN–6 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–7. The ECN–7 subunit consists of approximately 139,983 ac (56,649 ha) in Hood River and Wasco Counties, Oregon, and comprises only Federal lands managed by the USFS under the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest, removal or modification of habitat by forest fires and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south and east-west connectivity between subunits and critical habitat units.

Our evaluation of sites known to be occupied at the time of listing indicates that nearly 100 percent of the area of ECN–7 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–8. The ECN–8 subunit consists of approximately 94,622 ac (38,292 ha) in Jefferson and Deschutes Counties, Oregon, of Federal lands managed by the USFS under the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest, losses due to wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This

subunit is expected to function primarily for demographic support to the overall population, as well as north-south connectivity between subunits.

Our evaluation of sites known to be occupied at the time of listing indicate that approximately 61 percent of the area of ECN–8 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECN–9. The ECN–9 subunit consists of approximately 155,434 ac (62,902 ha) in Deschutes and Klamath Counties, Oregon, and comprises only Federal lands managed by the USFS under the NWFP (USDA and USDI 1994). Special management considerations or protection are required in this subunit to address threats from current and past timber harvest, losses due to wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south connectivity between subunits and critical habitat units.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 45 percent of the area of ECN–9 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

Unit 8: East Cascades South (ECS)

Unit 8 contains 368,381 ac (149,078 ha) and three subunits. This unit incorporates the Southern Cascades Ecological Section M261D, based on section descriptions of forest types from Ecological Subregions of the United States (McNab and Avers 1994c, Section M261D) and the eastern slopes of the Cascades from the Crescent Ranger District of the Deschutes National Forest south to the Shasta area. Topography is gentler and less dissected than the glaciated northern section of the eastern Cascades. A large expanse of recent volcanic soils (pumice region) (Franklin and Dyrness 1988, pp. 25–26), large areas of lodgepole pine, and increasing presence of red fir (*Abies magnifica*) and white fir (and decreasing grand fir) along a south-trending gradient further supported separation of this region from the northern portion of the eastern Cascades. This region is characterized by a continental climate (cold, snowy winters and dry summers) and a high-frequency/low-mixed severity fire regime. Ponderosa pine is a dominant forest type at mid-to-lower elevations, with a narrow band of Douglas-fir and white fir at middle elevations providing the majority of northern spotted owl habitat. Dwarf mistletoe provides an important component of nesting habitat, enabling northern spotted owls to nest within stands of relatively younger, smaller trees.

Subunit Descriptions—Unit 8

ECS–1. The ECS–1 subunit consists of approximately 127,801 ac (51,719 ha) in Klamath, Jackson, and Douglas Counties, Oregon, and comprises lands managed by the BLM and the USFS. Special management considerations or protection are required in this subunit to address threats to the essential physical or biological features from current and past timber harvest, losses due to wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for demographic support to the overall population, as well as north-south and east-west connectivity between subunits and critical habitat units. This subunit is adjacent to ECS–2 to the south.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 78 percent of the area of ECS–1 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the time of listing. We have determined that all of the unoccupied and likely occupied areas in this subunit are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat (USFWS 2011, p. ix). The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl.

ECS–2. The ECS–2 subunit consists of approximately 66,086 ac (26,744 ha) in Klamath and Jackson Counties, Oregon, and Siskiyou County, California, all of which are Federal lands managed by the BLM and USFS per the NWFP (USDA and USDI 1994, entire). Special management considerations or protection are required in this subunit to address threats to the essential physical or biological features from current and past timber harvest, losses due to wildfire and the effects on vegetation from fire exclusion, and competition with barred owls. This subunit is expected to function primarily for north-south connectivity between subunits, but also for demographic support in this area of sparse Federal land and sparse high-quality nesting habitat.

Our evaluation of sites known to be occupied at the time of listing indicates that approximately 77 percent of the area of ECS–2 was covered by verified northern spotted owl home ranges at the time of listing. When combined with likely occupancy of suitable habitat and occupancy by nonterritorial owls and dispersing subadults, we consider this subunit to have been largely occupied at the time of listing. In addition, there may be some smaller areas of younger forest within the habitat mosaic of this subunit that were unoccupied at the