

**FOR PUBLICATION**  
**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

ENVIRONMENTAL PROTECTION  
INFORMATION CENTER, a California  
nonprofit corporation; KLAMATH  
FOREST ALLIANCE, a California  
nonprofit corporation; KLAMATH-  
SISKIYOU WILDLANDS CENTER, an  
Oregon nonprofit corporation,  
*Plaintiffs-Appellants,*

v.

UNITED STATES FOREST SERVICE,  
*Defendant-Appellee.*

No. 04-15931  
D.C. No.  
CV-03-00938-GEB  
OPINION

Appeal from the United States District Court  
for the Eastern District of California  
Garland E. Burrell, District Judge, Presiding

Argued and Submitted  
February 15, 2006—San Francisco, California

Filed June 23, 2006

Before: J. Clifford Wallace, Michael Daly Hawkins, and  
Sidney R. Thomas, Circuit Judges.

Opinion by Judge Hawkins

**COUNSEL**

Marianne Dugan (argued), Facaros & Dugan, Eugene, Oregon, for the appellants.

Lisa Jones (argued) and M. Alice Thurston, United States Department of Justice, Environment & Natural Resources Division, Washington, D.C., for the appellee.

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**OPINION**

HAWKINS, Circuit Judge:

The Environmental Protection Information Center (“EPIC”) appeals from the district court’s summary judgment in favor of the United States Forest Service (“USFS”). EPIC challenges USFS’s failure to prepare an Environmental Impact Statement (“EIS”) in connection with the proposed Knob Timber Sale in the Klamath National Forest and further argues that the Environmental Assessment (“EA”) USFS did prepare was inadequate. EPIC also contends that the project violates the National Forest Management Act (“NFMA”). We affirm.

**FACTS AND PROCEDURAL HISTORY**

The Knob Timber Sale (the “Project”) is a vegetation management project affecting the Salmon River Ranger District of

the Klamath National Forest. The Project provides for harvesting timber from approximately 578 acres, scattered among twenty-seven units throughout the forest. The stated purpose of the Project “is to maintain stand health by leading stands into a resilient condition where they can provide a sustained yield of wood products and reduce their risk to potential catastrophic fire.”

USFS issued an EA for the Project in October 2002.<sup>1</sup> In preparing the EA, USFS relied on a number of documents, reports and studies, including biological assessments prepared by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (“FWS”) in formal consultations required by Section 7 of the Endangered Species Act (“ESA”). The final EA identified and discussed in detail two key issues: (1) the Project’s effect on the “critical habitat” of the northern spotted owl and (2) watershed effects, in which timber harvest, fuel reduction and road activities could potentially cause soil erosion or trigger slope failure, increasing sediment in streams.

Soon thereafter, USFS issued a decision notice and Finding of No Significant Impact (“FONSI”) selecting the proposed action alternative. USFS explained that this alternative had the best potential to achieve the Project’s purposes and that it would have long-term beneficial effects for the northern spotted owl and watershed health, with only minor or negligible short-term adverse effects.

EPIC filed suit in the district court, arguing that, under the National Environmental Policy Act (“NEPA”), USFS should have prepared a full EIS instead of an EA, and that the EA

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<sup>1</sup>USFS initially issued an EA describing the proposed action in December 2001 and a Decision Notice electing to move forward with the project in March 2002. However, based on comments received regarding cumulative watershed effects and its own additional analysis, USFS narrowed the project by eliminating a unit from the proposal.

itself was inadequate. EPIC also alleged that USFS violated the NFMA. The district court granted summary judgment to USFS on all claims.

### STANDARD OF REVIEW

We review the district court's grant of summary judgment de novo. *Native Ecosystems Council v. USFS*, 428 F.3d 1233, 1238 (9th Cir. 2005). Agency decisions that allegedly violate NEPA and NFMA are reviewed under the Administrative Procedure Act ("APA"), and may be set aside only if they are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* (quoting 5 U.S.C. § 706(2)(A)).

In reviewing an agency's decision not to prepare an EIS under NEPA, we employ an arbitrary and capricious standard that requires us to determine whether the agency has taken a "hard look" at the consequences of its actions, "based [its decision] on a consideration of the relevant factors," and provided a "convincing statement of reasons to explain why a project's impacts are insignificant."

*Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 730 (9th Cir. 2001) (internal quotations and citations omitted).

### DISCUSSION

#### I. NEPA Claims

##### A. Statutory Background

[1] An EIS is required for "major Federal actions significantly affecting the quality of the human environment . . . ." 42 U.S.C. § 4332(2)(C). The agency first prepares an EA to determine whether an action will have a significant impact, thus requiring preparation of an EIS. 40 C.F.R. § 1508.9. If the agency concludes there is no significant effect associated

with the proposed project, it may issue a FONSI in lieu of preparing an EIS. 40 C.F.R. § 1508.9(a)(1).

[2] The critical term here is “significantly.” Whether a project is “significant” depends on the project’s “context” and its “intensity.” 40 C.F.R. § 1508.27. Context refers to the scope of the action, while intensity refers to the severity of the impact. *Id.* The regulations include a list of ten intensity factors, four of which EPIC argues are applicable in this case:<sup>2</sup>

(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.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. . . .

(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.

*Id.* at § 1508.27(b).

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<sup>2</sup>EPIC’s opening brief suggests that six intensity factors are applicable, but offers no argument regarding two of those factors. *United States v. Loya*, 807 F.2d 1483, 1486-87 (9th Cir. 1987) (issues raised in a brief which are not supported by argument are deemed abandoned); *see also Greenwood v. FAA*, 28 F.3d 971, 977 (9th Cir. 1994). We also decline to address EPIC’s argument regarding barred owl expansion, because this issue was not raised before the district court. *See Monetary II Ltd. P’ship v. Comm’r*, 47 F.3d 342, 347 (9th Cir. 1994).

EPIC also asserts that even if an EIS is not required, the EA itself is inadequate and should be supplemented, citing many of the same reasons pertaining to its EIS arguments. We address these contentions together where appropriate.

#### B. Harm to the Northern Spotted Owl and its Critical Habitat

One of EPIC's primary arguments is that the Project will harm the northern spotted owl, a threatened species, and its habitat that has been designated "critical habitat" under the ESA. To resolve EPIC's contentions, it is useful to examine the backdrop of the debate and the specific Project parameters.

After significant debate and litigation, the northern spotted owl was listed as a threatened species under the ESA in 1990. 55 Fed. Reg. 26114 (June 26, 1990). In 1992, FWS delineated the "critical habitat" for the spotted owl. 57 Fed. Reg. 1796 (January 15, 1992). Critical habitat consists of those areas which have "physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection." 16 U.S.C. § 1532(5)(A).

Debate and litigation continued, however, and ultimately the government adopted the Northwest Forest Plan ("NFP"), which provided "a comprehensive forest management plan for the entire range of the spotted owl . . . ." *Gifford Pinchot Task Force v. U. S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1063 (9th Cir. 2004). The NFP withdrew 8.8 million acres from potential timber harvesting, and designated approximately 7.4 million acres of forest land as "late successional reserves" ("LSRs").<sup>3</sup> LSRs overlap with about 70% of the owl's previously-defined critical habitat and are also generally off-

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<sup>3</sup>"Late-successional" refers to the type of tree growth conducive to spotted owl habitat.

limits to timber harvest, although thinning, salvage, and research activities are permitted under certain conditions. The remaining approximately 5.5 million acres were designated “matrix” lands or “adaptive management areas,” and are potentially available for timber production, subject to standards in the NFP. *Id.* at 1064.

The Project involves logging on 578 acres scattered throughout the Klamath National Forest. Of this, 125 acres has been designated as “critical habitat” for the spotted owl. All of this critical habitat is outside the LSR and is thus in the “matrix” where timber production is permitted. However, within this 125 acres, only fourteen acres of nesting habitat would actually be removed (five acres from one unit and nine from another). In the third critical habitat unit, fifty-one acres of “high” quality nesting habitat would be degraded to “moderate” quality. The remaining sixty acres within the three critical habitat units is not considered suitable for nesting and roosting but is suitable for dispersal; according to the USFS EA and the FWS Biological Opinion (“BiOp”), all of the habitat units will maintain this dispersal function post-harvest.

#### 1. Harm to the Species

Against this backdrop, EPIC alleges that a full EIS should have been performed or, alternatively, that the analysis of the issue in the EA is inadequate. The Project, EPIC asserts, is likely to affect the northern spotted owl and its critical habitat significantly. EPIC points to portions of the FWS BiOp in which the BiOp notes that “three nest sites could be destroyed” and that the logging will remove “most, if not all, of the small amount of existing nesting habitat” within the critical habitat units.

These statements, however, must be read in context. For example, although the logging will remove existing nesting habitat from two critical habitat units, this amounts to a total of only fourteen acres. Similarly, the Project does not autho-

alize the destruction of any existing nest sites, and surveys and seasonal restrictions operate to protect potentially occupied nest sites. The projected take of three nests or pairs of owls is based on extrapolations from nesting data, and FWS determined that this level of anticipated take was permissible under the ESA.

[3] NEPA regulations direct the agency to consider the degree of adverse effect on a species, not the impact on individuals of that species. *See Native Ecosystems*, 428 F.3d at 1240 (“[I]t does not follow that the presence of some negative effects necessarily rises to the level of demonstrating a significant effect on the environment.”); *see also Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1276 (10th Cir. 2004) (“[I]ssuance of an incidental take statement ‘anticipating’ the loss of some members of a threatened species does not automatically lead to the requirement to prepare a full EIS.”). It was not arbitrary and capricious for USFS to determine that although there will be some effect on individual pairs, this will not cause a significant adverse effect on the species and require an EIS.

## 2. Uncertainty

[4] Next, EPIC argues that an EIS was required because the effects on the spotted owl are too uncertain. EPIC focuses on a statement within the FWS BiOp in which FWS, after analyzing the Project’s likely effects based on historic distributions of the spotted owl, notes that if activity centers and home ranges have changed, the effects may be distributed differently but cannot be “accurately described” without additional information. But EPIC fails to recite the remainder of the paragraph, in which FWS goes on to say:

However, even if owl activity centers have changed in recent years, it is reasonable to assume that the density of owls in the project area should be roughly constant . . . . Therefore, the magnitude of the overall



effect of habitat removal in home ranges and core areas by the [Project] should not be substantially different from that estimated above.

[5] Moreover, as this court has recently pointed out, the regulations do not anticipate the need for an EIS anytime there is *some* uncertainty, but only if the effects of the project are “highly” uncertain. *See Native Ecosystems*, 428 F.3d at 1240 (“Simply because a challenger can cherry pick information and data out of the administrative record to support its position does not mean that a project is highly controversial or highly uncertain.”); *see also* 40 C.F.R. § 1508.27(b)(5).

### 3. Increased Fire Risk in Critical Habitat

[6] EPIC also alleges that the EA fails to disclose a concern of increased fire risk within critical habitat unit CA-22. However, the EA specifically acknowledges that in each critical habitat area, short-term fuel loading increases will occur but long-term loading will be reduced. It also recognizes that because fire risk is already low in CA-22, the overall benefit in this particular unit would be “minimal.” USFS ultimately concludes that the proposed Project is still preferable to the no-action alternative because, without action, fuel loading would increase in the stand over the next five to ten years. The EA thus contains adequate disclosure of the risk and a reasoned evaluation of it, and does not reveal the need for an EIS on this ground.

### 4. Habitat Connectivity

[7] EPIC further contends that the EA fails to consider habitat connectivity, noting that portions of the critical habitat contain important dispersal habitat linking the LSRs. However, both the EA and the underlying FWS BiOp address connectivity. The EA recognizes the important connectivity and dispersal nature of the habitat, and, with respect to each critical habitat unit, concludes that the dispersal function would be

maintained under the Project parameters. The FWS BiOp also addresses the issue, noting that “silvicultural prescription will provide habitat suitable for dispersal within these units by maintaining a minimum canopy closure of 40 percent” and concluding that:

all [critical habitat] acreage proposed for harvest will continue to provide dispersal habitat post harvest . . . and will maintain connectivity between CHUs on the local scale by continuing to provide dispersal habitat . . . . Therefore, the proposed action will not preclude the ability of CHUs to maintain connectivity between the physiographic provinces and thus will not compromise the function of critical habitat in the conservation and recovery of the NSO.

EPIC’s claim therefore does not reveal a deficiency in the EA or a “significant” impact warranting a full EIS.

#### 5. Reliance on FWS’s “No Jeopardy” Opinion

EPIC also complains that USFS improperly relied on FWS’s opinion that the Project would not “jeopardize” the northern spotted owl. EPIC argues that even if the Project does not violate the ESA by threatening the continued existence of a species, an EIS is still required if the Project “may adversely affect” the species. Clearly, NEPA and the ESA involve different standards, but this does not require USFS to disregard the findings made by FWS in connection with formal consultation mandated by the ESA. *See, e.g.*, 40 C.F.R. §§ 1502.21, 1502.24.

Moreover, USFS did not rely solely on the “no jeopardy” conclusion, but on all of the analysis contained in the BiOp, as well as numerous other sources of information. In light of this information, USFS concluded in its FONSI that “[w]hile the Selected Alternative may affect habitat and has the potential to affect individual northern spotted owls, it will not be

significant under [NEPA].” Although EPIC seems to urge that *any* impact to a listed species requires an EIS, USFS correctly argues that the regulation’s “intensity” factor focuses on the “*degree* to which an action may adversely affect” a threatened species or critical habitat. See *Native Ecosystems*, 428 F.3d at 1240 (rejecting need for EIS despite FONSI’s acknowledgment of project’s impact on individual goshawks and their habitat, where USFS concluded impact on the species was not significant).

#### 6. Reliance on LSRs

In a somewhat related argument, EPIC contends that USFS (and FWS) improperly relied on the existence of LSRs to diminish the Project’s impact on critical habitat. EPIC’s argument is based primarily on our recent decision in *Gifford Pinchot*, 378 F.3d at 1069-76.

*Gifford Pinchot* involved a challenge under the ESA to FWS regulations defining “adverse modification” of critical habitat and to FWS’s reliance on LSRs to compensate for loss of critical habitat in various biological opinions. We invalidated the adverse modification regulation because it did not account for considerations of “recovery” as opposed to “survival” when evaluating adverse modification of critical habitat under the ESA. *Id.* at 1069-71. We also held that FWS’s finding — that loss of critical habitat was not an adverse modification because of the existence of the LSR habitat — was arbitrary and capricious, and noted that this error was not harmless because reliance on the LSRs pervaded the BiOps. *Id.* at 1076 & n.12. EPIC argues that FWS’s BiOp in this case suffers from similar flaws, while admitting it has not brought an action under the ESA or challenged the BiOp itself.

In the BiOps challenged in *Gifford Pinchot*, FWS appears to have essentially treated the LSRs as a substitute for critical habitat. *Id.* at 1075-76. In contrast, although the FWS BiOp in this case does contain some discussion of LSRs, it contains

a significant analysis of the Project's effect on critical habitat that is independent of the LSR discussion.

Moreover, even assuming the FWS BiOp is similarly flawed, USFS did not rely exclusively on this document or on its finding of no "adverse modification." Further, EPIC's NEPA challenge involves a different statutory scheme than the one at issue in *Gifford Pinchot*: NEPA regulations direct USFS to consider the "degree" to which critical habitat is adversely affected, whereas the ESA prohibits any "adverse modification" of critical habitat.

[8] Although there is some discussion of the existence of LSRs in the EA, in this case (and unlike *Gifford Pinchot*), reliance on the LSRs does not pervade the EA or FONSI, and USFS did not use the LSRs as a "substitute" for critical habitat.<sup>4</sup> The EA and FONSI demonstrate that the agency gave a "hard look" at the Project's effect on critical habitat and an adequate explanation of why USFS found adverse impacts to critical habitat were not likely to be significant within the meaning of NEPA — i.e., the small percentage of critical habitat lost and maintenance of critical constituent elements such as dispersal habitat. We therefore conclude that the EA contains an adequate discussion of the critical habitat issue and that it was not arbitrary and capricious for the agency to determine that an EIS was not required.

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<sup>4</sup>Importantly, *Gifford Pinchot* does not mandate that agencies ignore LSRs altogether, and expressly approved reliance on compliance with the NFP, especially the LSRs, when analyzing jeopardy to the species (as opposed to its critical habitat) under the ESA. 378 F.3d at 1066-68. Most of the references to LSRs in the EA and FONSI relate to the Project's impact on the species, as opposed to its critical habitat.

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## C. Impacts to Watershed

### 1. Uncertainty

EPIC contends that an EIS was also necessary because the Project is likely to have significant, short-term adverse impacts on the watershed and because the impacts are “uncertain.” EPIC’s allegation of “uncertainty” is based on the EA’s use of the term “immeasurable” to describe increases in cumulative watershed effects. However, read in the proper context, this term reflects not uncertainty in projecting effects, but USFS’s conclusion that any effects would be so negligible that they could not be measured: “These increases would be immeasurable and not likely to adversely affect water quality, anadromous fish habitat or species.”

### 2. Short-term Adverse Effects

[9] EPIC also alleges that the EA’s analysis of watershed impacts does not provide the “hard look” required by NEPA, that the agency did not use high-quality information, and that the agency focused disproportionately on the long-term benefits of the Project. Although EPIC alleges that the EA contains “very limited actual analysis of watershed impacts,” in fact the EA contains fifteen pages devoted to the watershed issue, describing the existing status of the watershed and the projected impacts of the Project, and including precautions and methods that would be utilized to minimize impacts.

[10] Although “[s]ignificance cannot be avoided by terminating an action temporary,” 40 C.F.R. § 1508.27(b)(7), an adverse effect still must be significant to require an EIS. The EA does not ignore short-term adverse effects resulting from the Project. The EA addresses such effects throughout the analysis, concluding that both direct and indirect short-term effects will be “minor” or “negligible” for at least seven different, detailed reasons, including various protective measures incorporated into the Project parameters and the small and

widely-dispersed nature of the areas affected. Although the EA expects beneficial long-term effects from the Project, it contains a reasoned evaluation of the short-term adverse impacts. Because these impacts are expected to be only “minor” or “negligible,” an EIS was not required.

### 3. Cumulative Impacts

[11] In determining whether an action requires an EIS, the agency must consider “[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts.” 40 C.F.R. § 1508.27(b)(7). EPIC asserts that the EA’s analysis of cumulative effects on the watershed was seriously flawed, suggesting that the agency glossed over cumulative effects because the effects of the Project itself are small. However, the entire EA analysis of the watershed impacts is based on a “cumulative watershed effects” (“CWE”) model, which incorporates the proposed action’s effects together with current conditions and other reasonably foreseeable projects. The EA considers the CWE on a project level and also a larger watershed scale. EPIC does not argue that there is any particular error in using the CWE model; indeed, this court has previously refused to question this methodology, deferring instead to the agency’s expertise in developing the model. *Inland Empire Pub. Lands Council v. Schultz*, 992 F.2d 977, 981 (9th Cir. 1993). The agency considered cumulative watershed effects and provided a significant amount of quantified and detailed information; the EA’s analysis was sufficient and did not reveal the need for an EIS.

#### D. Failure to Include Meteor Timber Sale

EPIC also argues that the EA’s overall analysis of cumulative impacts is flawed because USFS failed to consider the impacts of the Meteor Timber Sale. Meteor and Knob were both initially part of a larger project, called “Comet,” which was abandoned. When the final Knob EA was issued, the

Meteor project had just been proposed, containing some of the units from the original Comet project.

[12] Projects that are “reasonably foreseeable” should be included in the cumulative effects analysis. 40 C.F.R. § 1508.7. In the EA, USFS noted the Meteor proposal but specifically excluded it from its analysis because Meteor was “in the initial planning stage” and “specifics of the units (size and treatment prescription)” had not been identified at that time. Although “[i]t is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now,” *Kern v. BLM*, 284 F.3d 1062, 1075 (9th Cir. 2002), nor do “we require the government to do the impractical,” if not enough information is available to permit meaningful consideration, *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1215 (9th Cir. 1998) (quoting *Inland Empire Pub. Lands Council v. USFS*, 88 F.3d 754, 764 (9th Cir. 1996)). See *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.20 (1976) (noting that once contemplated actions become more formal proposals, later impact statements on those projects will take into account the effect of the earlier proposed actions).<sup>5</sup>

Moreover, later, in response to comments to the EA, USFS *did* analyze the effect of the Meteor project based on the information known about the proposed project at that time. Cf. *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 560-61 (9th Cir. 2000) (considering evidence that agency rectified NEPA violation). In the comment response, USFS explained that although the proposal was still not firm, enough was then known to permit a general discussion of effects. USFS noted that the Meteor project resembled the Knob project in terms of prescriptions, types of logging systems, scattering of units and other resource protection measures, and concluded that

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<sup>5</sup>Indeed, that is exactly what happened in this case, as USFS eventually prepared a full EIS for the Meteor Project, which included a cumulative analysis of the Knob and Meteor Projects.

Meteor would have similar minor or negligible watershed effects.

[13] In sum, because the parameters of the Meteor project were unknown at the time of the EA, it was not arbitrary and capricious for USFS to omit the project from its cumulative analysis. Moreover, even if USFS made a clear error of judgment by failing to include this project in the EA, it remedied this error by including a reasonably complete discussion of the issue in the comment response, based on the project parameters that were known at that point in time.

#### E. Reliance on Mitigation Measures

EPIC also criticizes USFS's reliance on mitigation measures to downplay the adverse effects of the Project. It argues that the EA provides no data supporting the efficacy of its mitigation measures. *See Nat'l Parks*, 241 F.3d at 733-35 (EIS required where effectiveness of proposed mitigation measures was too uncertain).

This case differs from *National Parks*, however, because instead of analyzing potential impacts of a proposed action and then developing a plan to mitigate those adverse effects, the Project incorporates mitigation measures throughout the plan of action, so that the effects are analyzed with those measures in place.<sup>6</sup> Thus, it cannot be said that the EA fails to analyze the effects of the mitigation measures; instead, the EA

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<sup>6</sup>Although it lacks the force of a regulation (*see Friends of the Earth v. Hintz*, 800 F.2d 822, 838 n.15 (9th Cir. 1986)), the Center for Environmental Quality's "Forty Questions" memorandum discusses this approach:

[W]here the proposal itself so integrates mitigation from the beginning that it is impossible to define the proposal without including the mitigation, the agency may then rely on the mitigation measures in determining that the overall effects would not be significant.

46 Fed. Reg. 18026, 18037 (1981).



analyzes the Project under the enumerated constraints and concludes that any environmental impacts will not be significant.

The EA also contains very specific and detailed information on the ways that the timber harvest will be conducted in order to minimize effects on wildlife or watershed. In addition to these specifically identified measures, the EA also cross-references applicable Best Management Practices (“BMPs”), attached in an appendix, which are also quite detailed. *Compare Wetlands Action Network v. U.S. Army Corps of Eng’rs*, 222 F.3d 1105, 1121 (9th Cir. 2000) (upholding mitigation measures where special permit conditions were “extremely detailed,” even though all details of mitigation plan were not yet finalized) *with Neighbors of Cuddy Mountain v. USFS*, 137 F.3d 1372, 1380 (9th Cir. 1998) (holding that “perfunctory description” of mitigation measures was inadequate). The EA also explains that there will be concurrent monitoring of the implementation and effectiveness of these BMPs to aid in timely identification of threats and the need for preventative measures or project modifications. *See Okanogan Highlands Alliance v. Williams*, 236 F.3d 468, 476 (9th Cir. 2000) (upholding discussion of mitigation measures in an EIS where document provides methods for ensuring environmental problems do not develop).

[14] In short, given the specificity of the protection measures, the analysis of the environmental impacts with these measures in place, and the provision for ongoing monitoring to ensure compliance, USFS has taken the requisite “hard look” at the Project’s environmental consequences, and it was not arbitrary and capricious for it to determine that the impacts would not be significant with these mitigation measures in place.

#### F. Failure to Consider Reasonable Range of Alternatives

[15] EPIC also complains that the EA is inadequate because it does not analyze an adequate range of alternatives

to the proposed action. We recently joined other circuits in holding that “an agency’s obligation to consider alternatives under an EA is a lesser one than under an EIS,” *Native Ecosystems*, 428 F.3d at 1246, and went on to hold that USFS considered an adequate range of alternatives when it dismissed four alternatives without detailed consideration and evaluated only two alternatives — the proposed project and a no-action alternative — in detail, *id.* at 1245-46.

[16] In contrast, the EA here considered in detail a no-action alternative, the proposed Project alternative, and a third alternative that was similar to the Project but did not log any northern spotted owl critical habitat. USFS had also considered six additional alternatives, but eliminated them from detailed study for various reasons. To the extent EPIC argues that USFS did not give a sufficient explanation for rejecting these additional alternatives, the explanations were not arbitrary or capricious, and were tied to the stated purpose of the Project.<sup>7</sup> *See id.* at 1247 (“Alternatives that do not advance the purpose of the [Project] will not be considered reasonable or appropriate.”). Therefore, USFS fulfilled its obligations under NEPA to evaluate reasonable alternatives to the proposed project.

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<sup>7</sup>One alternative was eliminated because it was found incompatible with maintenance of sensitive species; another alternative was eliminated because of concerns about cumulative watershed effects; a non-commercial alternative was rejected because it would not achieve the need to provide sustained yield of wood products and would cost taxpayers money instead of benefitting the Treasury; an alternative with an upper diameter limit was eliminated because it would not achieve desired stand conditions, as large decadent and high-risk trees would be left on site; a no-harvest alternative was rejected because it did not meet the purpose of the proposal to maintain stand health and reduce fire risk; and a chemical-free alternative was rejected because it was determined that some gopher baiting was necessary to achieve regeneration of certain types of trees.

### G. Short-term Increased Fire Risk

EPIC further asserts that the EA contains inadequate disclosures about short-term increases in fire risk and that the EA does not demonstrate that the Project will meet the goal of reducing overall fire risk. In addition to the discussion noted above regarding fire risk within spotted owl critical habitat, the EA also contains a general section regarding fire risk and clearly discloses both the risk and the steps that will be taken to minimize that risk.

In a similar vein, EPIC contends USFS violated NEPA by failing to document that the Project will meet its stated purpose — i.e., reducing the risk of stand-replacing fires. EPIC asserts that USFS failed to address the “body of scientific literature that directly disputes Defendant’s allegations that commercial logging in mature stands will decrease fire danger.” USFS responds that all project logging will be accompanied by fuel treatment, citing studies that have, in the agency’s view, shown thinning combined with prescribed fire/fuels treatment has yielded the best results in preventing catastrophic wildfires. When specialists express conflicting views, we defer to the informed discretion of the agency. *See Earth Island Institute v. USFS*, 442 F.3d 1147, 1160 (9th Cir. 2006).

Thus, we conclude that the EA adequately discloses and discusses the short-term increase of fire risk, and USFS’s conclusion that the Project will meet the goal of long-term risk reduction is not arbitrary or capricious.

## II. NFMA Claims

[17] EPIC also brings claims against USFS under the NFMA. The NFMA imposes substantive duties on USFS, including the duty to “provide for diversity of plant and animal communities.” 16 U.S.C. § 1604(g)(3)(B). NFMA regulations effective at the time of USFS’s action required:

Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. . . . In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well-distributed so that those individuals can interact with others in the planning area.

36 C.F.R. § 219.19 (2000).

The Klamath Forest Plan identifies twenty-seven “management indicator species” or “MIS.” These species are monitored because the species’ “population changes are believed to indicate the effects of management activities.” 36 C.F.R. § 219.19(a)(1) (2000).<sup>8</sup> In connection with the Project, a Wildlife Biologist and Fisheries Biologist prepared a site-specific assessment of the effects of the Project on habitats for sixteen designated MIS. The study concluded there would be minor effects from the proposed action on six of these species due to reduction of small patches of habitat scattered throughout the landscape, causing some shift in species’ home ranges and small short-term reductions in overall populations.

EPIC asserts that USFS failed to comply with its obligations under NFMA because it “improperly relied on habitat quality” rather than undertaking a study of the actual abundance of the individual MIS. The analysis of quality and quantity of habitat, rather than actual MIS populations, is commonly referred to as the “proxy on proxy” methodology. *Native Ecosystems*, 428 F.3d at 1251. This methodology essentially assumes that “maintaining the acreage of habitat necessary for survival would in fact assure a species’ survival.” *Inland Empire*, 88 F.3d at 761.

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<sup>8</sup>Although new regulations have eliminated the MIS concept, see 36 C.F.R. § 219.16, USFS concedes that it was required to comply with the regulations and forest plan in place at the time of its decision.

[18] Although EPIC levels a general attack on the use of habitat as a proxy for population, we have previously endorsed the practice absent some indication in the record that USFS’s underlying methodology is flawed. *Compare id.* at 761 (assumption that maintaining habitat maintains species is “eminently reasonable”); *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1154 (9th Cir. 1998) (“We agree that using habitat as a proxy for population is not arbitrary and capricious.”); *Gifford Pinchot*, 378 F.3d at 1066-67 (approving habitat proxy method for northern spotted owl under the ESA); and *Native Ecosystems*, 428 F.3d at 1251 (“The record does not demonstrate any flaws in the methodology used by the Forest Service to identify goshawk habitat”) *with Idaho Sporting Congress v. Rittenhouse*, 305 F.3d 957, 972 (9th Cir. 2002) (concluding reliance on habitat existence arbitrary and capricious where forest monitoring report indicated that, because of various invalid assumptions, “the Forest Service’s methodology does not reasonably ensure viable populations of the species at issue”); *Lands Council v. Powell*, 395 F.3d 1019, 1036 (9th Cir. 2005) (“The record here shows that the proffered data is about fifteen years old, with inaccurate canopy closure estimates, and insufficient data on snags.”); and *Earth Island Institute*, 442 F.3d at 1175-76 (rejecting use of habitat monitoring where forest plan required population monitoring and where there was no indication USFS consulted current studies or identified methodology in determining suitable habitat).

In this case, EPIC does not allege any specific deficiency in USFS’s methodology with respect to any of the sixteen potentially affected MIS.<sup>9</sup> EPIC instead relies on a single statement in the Klamath Forest 2000 monitoring report:

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<sup>9</sup>USFS relied on a site-specific MIS assessment, which incorporated by reference the general habitat requirements for each MIS, the 2002 Klamath National Forest Management Indicator Species analysis, and standards for analyzing habitat “capability.” *Cf. Earth Island Institute*, 442 F.3d at 1176 (rejecting habitat monitoring where there was no indication USFS consulted current field studies and no identification of methodology used in determining “suitable” habitat).

Almost all [MIS] species have some inventory and/or monitoring data available. It appears that some Management Indicator Species are not easily monitored and there isn't a clear link between some species presence or abundance and changes in habitat conditions.

We are unpersuaded that such a general statement — part of a forest-wide summary not necessarily applying to any of the MIS possibly affected by the Project — undermines the site-specific, project-specific, and species-specific analysis conducted in the MIS assessment. In addition, we have previously recognized that monitoring difficulties do not render a habitat-based analysis unreasonable, so long as the analysis uses all the scientific data currently available. *See Inland Empire*, 88 F.3d at 762.

[19] The MIS Assessment supports USFS's conclusion that so little MIS habitat will be altered that the Project will have no significant impact on species population. It was not arbitrary or capricious for USFS to conclude that the Project complied with the NFMA and its viability regulations.

### CONCLUSION

While the Project will have at least some short-term adverse effects on the environment, the question is to what degree. Unfortunately, EPIC “seeks to capitalize on the Forest Service's thorough and candid environmental analysis by seizing on various bits of information and data . . . to claim that substantial questions exist as to whether the [Project] may have a significant effect on the environment.” *See Native Ecosystems*, 428 F.3d at 1240. We find that the EA provided detailed and adequate consideration of information from a wide range of sources, and that USFS's conclusion that the adverse effects would not be “significant” with the meaning of NEPA was not arbitrary and capricious. We affirm the district court's grant of summary judgment on the NEPA claims.

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The record does not reveal any specific flaws in USFS's habitat proxy approach in this case, and the MIS Assessment supports USFS's conclusion that the Project complied with NFMA. We therefore also affirm the district court's grant of summary judgment on the NFMA claims.

AFFIRMED.