FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

NATIVE ECOSYSTEMS COUNCIL; ALLIANCE FOR THE WILD ROCKIES WILDWEST INSTITUTE,
Plaintiffs -Appellants,

v.

TOM TIDWELL, in his official capacity as Northern Region Regional Forester; BRUCE RAMSEY, in his official capacity as Supervisor of the Beaverland-Deerlodge National Forest; MARK PETRONI, in his official capacity as District Ranger of the Madison River Ranger District of the Beaverhead-Deerlodge National Forest; UNITED STATES FOREST SERVICE, an agency of the U.S. Department of Agriculture,
Defendants-Appellees,

MADISON COUNTY; BEAVERHEAD COUNTY, MONTANA,
Defendants-intervenors-Appellees,

SITZ ANGUS RANCH; GARY L. CLARK; MOOSE CREEK GRAZING ASSOCIATION; MAX L. ROBINSON, SR.; MAX J. ROBINSON, JR.; MONTANA STOCKGROWERS ASSOCIATION; MONTANA WOOL GROWERS ASSOCIATION,
Intervenors-Appellees.

No. 06-35890
D.C. No. CV-04-00127-DWM
OPINION

Appeal from the United States District Court
for the District of Montana
Donald W. Molloy, Chief District Judge, Presiding

Argued and Submitted
November 19, 2008—Seattle, Washington

Filed March 9, 2010

Before: Alex Kozinski, Chief Judge, Betty B. Fletcher, and Johnnie B. Rawlinson, Circuit Judges.

Opinion by Judge Rawlinson;
Dissent by Chief Judge Kozinski

COUNSEL

Thomas J. Woodbury, Missoula, Montana, on behalf of plaintiff-appellants Native Ecosystems Council, Alliance for the Wild Rockies, and Wildwest Institute.

Robert H. Oakley, Washington, D.C., on behalf of defendant-appellees Tom Tidwell, Bruce Ramsey, Mark Petroni, and the United States Forest Service.

John E. Bloomquist, Helena, Montana, on behalf of intervenor-appellees Sitz Angus Ranch, Gary L. Clark, Moorse Creek Grazing Association, Max L. Robinson Sr., Max L. Robinson, Jr., Montana Stockgrowers Association, and Montana Wool Growers.

OPINION

RAWLINSON, Circuit Judge:

Plaintiffs-Appellants Native Ecosystems Council, Alliance for the Wild Rockies, and Wildwest Institute (collectively NEC) appeal the district court's summary judgment in favor of Defendants-Appellees Tom Tidwell, Bruce Ramsey, Mark Petroni, and the United States Forest Service (collectively Forest Service); Defendants-Intervenors-Appellees Madison County and Beaverhead County; and Intervenors-Appellees Sitz Angus Ranch, Gary L. Clark, Moose Creek Grazing Association, Max L. Robinson Sr., Max L. Robinson, Jr., Montana Stockgrowers Association, and Montana Wool Growers Association; and (collectively Intervenors-Appellees). NEC argues that the district court erred in finding

that Forest Service approval of a project to update grazing allotments in the Beaverhead-Deerlodge National Forest complies with the Forest Service's obligation to ensure species diversity as required under the National Forest Management Act (NFMA). It also contends that the district court erred in concluding that the Environmental Assessment undertaken by the Forest Service project satisfied the National Environmental Policy Act (NEPA). We agree with NEC on both counts. Because the Forest Service's environmental assessment was based on a nonexistent management indicator species (MIS), its habitat proxy analysis was not reliable. The Forest Service also failed to take the requisite "hard look" at the project as required by NEPA. We therefore reverse the district court's summary judgment in favor of the Forest Service, and remand for further proceedings consistent with this opinion.

I. BACKGROUND

A. Project area and Allotment Management Plan (AMP) Proposal[1]

The Antelope Basin/Elk Lake project area is in the Beaverhead-Deerlodge National Forest (BDNF) in Southwest Montana. The project area is approximately 48,000 acres and forms the southeast portion of the Gravelly Mountain Range. Most of the project area is open, mountain sagebrush/grasslands with some scattered timber along streams.

[1]An AMP is "a document, prepared in consultation with lessees or permittees, that applies to livestock operations on public lands, and (1) prescribes the manner and extent to which livestock operations will be conducted in order to meet multiple use, sustained-yield, economic, and other needs and objectives, (2) describes range improvements to be installed and maintained, and (3) contains such other provisions relating to livestock grazing and other objectives found by the Secretary to be consistent with the provisions of [the Federal Land Policy Management Act]." Antelope Basin/Elk Lake AMP Updates, *Environmental Assessment*, Revised (Environmental Assessment), Chapter 1, p. 2 (December 2002).

Three Forest Service activities have most affected the sagebrush ecosystem in the project area: 1) herbicide application to control sagebrush densities;[2] 2) burning to control sagebrush densities;[3] and 3) livestock grazing. Sheep and cattle have grazed a majority of the project area over the past century.

As part of a settlement agreement in an unrelated case, the Forest Service agreed to a schedule for completing NEPA environmental analyses and decisions for the authorization of livestock grazing and associated resource protection measures. The Environmental Assessment at issue in this case contains the NEPA analysis underlying some of the livestock allotments listed in the agreed-upon schedule.

The project area was divided into eleven grazing allotments. The project proposed updating AMPs for these eleven allotments. The updated allotments would determine "where livestock can graze, when grazing would occur and what specific guidelines would be established to regulate the intensity of grazing." As of the time of the proposal, the prior AMPs for all eleven allotments were ten years or older.

The proposal specifically identified the goals established in the BDNF Land Resource Forest Plan (Forest Plan)[4] which governed the proposed project. These goals included maintaining a sufficient number of diverse habitats to support native wildlife and providing opportunities for grazing by domestic livestock without compromising extant forest resources. The proposal also stated that no further "sage brush control measures" such as burning or herbicides are contemplated in the project area in the near future.

---

[2]From 1960 to 1974, approximately 5865 acres were treated with herbicides.

[3]6,491 acres were burned from 1982-1988, and 6,476 acres from 1992 - 2000.

[4]The NFMA requires the Forest Service to develop a forest plan for each unit of the National Forest System. *See* 16 U.S.C. § 1604(a).

The Forest Service prepared an initial Environmental Assessment for the proposed AMPs, and issued a revised Environmental Assessment after receiving public comments. The revised Assessment specifically addressed concerns regarding the project's impact on sage grouse, as well as other sagebrush habitat obligates. The Environmental Assessment considered three options for updating the AMPs: (1) Alternative A, which continued the status quo; (2) Alternative B, the preferred alternative, which modified the AMPs to protect riparian habitat while allowing grazing;[5] and (3) Alternative C, which banned grazing altogether. The United States Fish and Wildlife Service issued a Biological Evaluation concluding that adoption of the preferred alternative was not likely to adversely affect or jeopardize the continued existence of any listed species.

In November, 2003, District Ranger Mark Petroni released a Decision Notice and Finding of No Significant Impact (DN/FONSI) reflecting the administrative decision to proceed with Alternative B. The DN/FONSI concluded that the project was not a major federal action with significant effect on the quality of the human environment, and therefore no Environmental Impact Statement (EIS) was warranted under NEPA.

[5]Alternative B proposed revising the AMPs in numerous ways: reducing animal unit months from 11,225 to 10,453; eliminating the Elk Mountain allotment; changing boundaries to create a new, Two Drinks allotment; excluding livestock from a portion of Elk Lake and all of Elk Springs Creek; limiting allowable upland forage utilization to fifty percent; limiting riparian forage to fifty-five percent; possibly eliminating livestock from the upper regions of Narrows Creek; and constructing structural improvements as needed. The proposal included construction of 6.75 miles of new fence, a new reservoir, 26 new water troughs, 5.75 miles of new pipeline, and relocating 5 miles and removing 2 miles of existing fence. For all allotments, livestock would be moved to the next pasture or removed from the allotment once certain utilization thresholds were met.

B. The Sage Grouse

To facilitate its goals of wildlife diversity, the governing Forest Plan designates certain wildlife as "management indicator species" (MIS). These species are monitored to measure the effect of various activities on corresponding wildlife habitats. The objective of monitoring the MIS is to ensure the viability of wildlife species existing in the forest. The sage grouse is one such MIS for the sagebrush wildlife habitat.

The sage grouse is entirely dependent on sagebrush ecosystems. The sage grouse population in southwestern Montana has trended downward for the past decade. There are no identified active sage grouse leks in the project area.[6] The closest known active lek is approximately eleven miles west of the project area. *See A Review of USFS Management Activities and Their Relationship to Sage grouse in the Antelope Basin/Elk Lake Area of Southwestern Montana*, J.W. Connelly (September, 2004) (hereinafter, "*Connelly Review*"). In the past fifteen years, only two possible sage grouse sightings have been noted in the project area.

Approximately 21,000 acres (40% of the project area) are considered to have potential sage grouse habitat. Only 1,900 acres are considered to have potential sage grouse nesting and early brood rearing habitat.

C. Supplemental Information Report

In December 2004, the Forest Service issued a Supplemental Information Report ("SIR") concerning the sage grouse,

[6]A lek is a "breeding display site[ ], typically occurr[ing] in open areas surrounded by sagebrush. Male sage grouse apparently construct leks "opportunistically at sites within or adjacent to potential nesting habitat." *Guidelines to Manage Sage grouse Populations and Their Habitats*, John W. Connelly, Michael A. Schroeder, Alan R. Sands and Clait E. Braun, *Wildlife Society Bulletin*, Vol. 28, p. 970 (2000) (hereinafter, "*Connelly Guidelines*").

and specifically discussed information that had been released after the Environmental Assessment. The SIR evaluated the findings of three primary works as they related to the proposed project: (1) *Conservation Assessment of Greater Sage grouse and Sagebrush Habitats*, J.W. Connelly, S.T. Knick, M.A. Schroeder and S.J. Stiver, Western Association of Fish and Wildlife Agencies (June, 2004) (hereinafter, "*Conservation Assessment*"); (2) *Management Plan and Conservation Strategies for Sage grouse in Montana - Final Draft Plan*, Montana Sage grouse Work Group (March, 2004); and (3) habitat modeling completed in 2004 by the Forest Service surveying active and inactive sage grouse leks in the vicinity of the project area.

To inform its analysis, the Forest Service requested that Connelly undertake a site-specific review of the project area in light of the new information concerning the sage grouse. Connelly's findings were documented in the September, 2004 *Connelly Review*. The review concluded that the Environmental Assessment's conclusions were "reasonable and supported by the available evidence. Effects to sage grouse resulting from project implementation will likely be minimal."

After considering the newly available information and the *Connelly Review*, the District Ranger determined that the Environmental Assessment's conclusions remained accurate. The SIR retained the determination of minimal effects to sage grouse from project implementation, and did not recognize a need to further revise the Environmental Assessment or prepare an EIS.

D. Procedural Background

NEC filed an administrative appeal of the District Ranger's decision that no EIS was warranted. Then-Regional Forester, Abigail Kimbell, upheld the District Ranger's decision.

After NEC filed a complaint in district court seeking declaratory and injunctive relief, each party moved for summary judgment. The district court granted summary judgment to the Forest Service and the Intervenors. NEC filed a timely appeal, invoking our jurisdiction under 21 U.S.C. § 1291.[7]

II. STANDARDS OF REVIEW

"We review de novo the district court's grant of summary judgment." *Lands Council v. Martin*, 529 F.3d 1219, 1225 (9th Cir. 2008) (citation omitted). We review agency decisions for compliance with the NFMA and NEPA under the Administrative Procedure Act (APA). *See Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005, 1008 (9th Cir. 2006). The APA directs us to "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). "Review under the arbitrary and capricious standard is narrow and we do not substitute our judgment for that of the agency." *Tucson Herpetological Soc'y v. Salazar*, 566 F.3d 870, 875 (9th Cir. 2009) (citation, alterations and internal quotation marks omitted). "The [agency] has an obligation, however, to state a rational connection between the facts found and the decision made." *Id.* (citation and internal quotation marks omitted).

III. DISCUSSION

A. Compliance with the NFMA

[1] "The NFMA sets forth the statutory framework and

[7]On appeal, NEC does not challenge the district court's conclusion that it failed to exhaust its administrative remedies with respect to its arguments regarding the northern goshawk, flammulated owl, grayling, lake trout, and boreal toad. Nor does NEC renew its claims under the Clean Water Act. Accordingly, we consider these arguments waived. *See Eng v. Cooley*, 552 F.3d 1062, 1072 (9th Cir. 2009).

specifies the procedural and substantive requirements under which the Forest Service is to manage National Forest System lands." *Lands Council v. McNair*, 537 F.3d 981, 988 (9th Cir. 2008) (en banc). Procedurally, "all management activities undertaken by the Forest Service must comply with the forest plan, which in turn must comply with the [NFMA]." *Idaho Sporting Cong., Inc. v. Rittenhouse*, 305 F.3d 957, 962 (9th Cir. 2002). Substantively, the NFMA also places a duty on the Forest Service to "provide for diversity of plant and animal communities based on the suitability and capability of the specific land area . . . " 16 U.S.C. § 1604(g)(3)(B). "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." *Idaho Sporting*, 305 F.3d at 962 (citation omitted).

[2] Regulations implementing the statute, in effect at the time the Forest Service issued its final decision, required the Forest Service to manage fish and wildlife habitat "to maintain viable populations of existing . . . species." 36 C.F.R. § 219.19 (2000). To ensure population viability and monitor the effects of management, the regulations mandated the identification and selection of a management indicator species (MIS). *See id.* at 219.19(a)(1). The regulations also provided that "[p]opulation trends of the management indicator species will be monitored and relationships to habitat changes determined . . . " *Id.* at 219.19(a)(6).[8]

The Forest Plan incorporated specific species diversity maintenance goals, explaining that:

[8]This regulation is no longer in effect, as "new regulations have eliminated the MIS concept . . . " *Envtl. Prot. Info. Ctr.*, 451 F.3d at 1017 n.8; *see also* 36 C.F.R. § 219.16 (2008). However, the Forest Service is "required to comply with the regulations and forest plan in place at the time of its decision." *Envtl. Prot. Info. Ctr.*, 451 F.3d at 1017 n.8.

> Maintenance and enhancement of wildlife habitat has high priority in the management of the Forest. Viable populations of all existing wildlife species will be maintained by providing a diversity of habitats throughout the Forest. Wildlife indicator species have been identified and will be monitored to ensure that assumptions concerning the effects of management activities on wildlife habitat and populations are appropriate.

United States Forest Service, *Forest Plan, Beaverhead National Forest* (Forest Plan), 1986, p. II-3. The Forest Plan designated the sage grouse as the MIS for sagebrush communities. The Forest Plan contemplated monitoring the sage grouse as an indicator species "to measure the effect of management activities on representative wildlife habitats with the objective of ensuring that viable populations of existing native and desirable non-native vertebrate species are maintained." *Id.*

[3] Despite its designation as an MIS, the sage grouse is virtually non-existent in the project area. Because actual sage grouse population data is unavailable, the Environmental Assessment looked to the sagebrush habitat to assess viability for the sagebrush obligate species. This is known as the "proxy-on-proxy" approach, whereby the Forest Service "use[s] habitat as a proxy to measure a species' population, and then [ ] use[s] that species' population as a proxy for the population of other species." *McNair*, 537 F.3d at 997 n.10.

[4] The proxy-on-proxy approach effectively allows the Forest Service "to avoid studying the population trends of the Indicator Species by using Indicator Species habitat as a proxy for Indicator species population trends." *Lands Council v. Powell*, 395 F.3d 1019, 1036 (9th Cir. 2005), *as amended*. Use of this approach however, is appropriate "only where both the Forest Service's knowledge of what quality and quantity of habitat is necessary to support the species and the

Forest Service's method for measuring the existing amount of that habitat are reasonably reliable and accurate." *Native Ecosystems Council v. United States Forest Service*, 428 F.3d 1233, 1250 (9th Cir. 2005). Underlying the proxy-on-proxy approach is the "assum[ption] that maintaining the acreage of habitat necessary for survival would in fact assure a species' survival." *Envtl. Prot. Info. Ctr.*, 451 F.3d at 1017 (citation and internal quotation marks omitted). Thus, "[t]he test for whether the habitat proxy is permissible . . . is whether it reasonably ensures that the proxy results mirror reality." *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*, 378 F.3d 1059, 1066 (9th Cir. 2004) (citations and internal quotation marks omitted).

[5] The proxy-on-proxy approach's reliability is questionable where the MIS is absent from the project area.[9] Regardless of whether the Forest Service's methodology comports with established scientific standards, the habitat proxy "does not reasonably ensure viable populations of the species at issue," when almost no sage grouse have been seen in the project area for fifteen years. *Idaho Sporting*, 305 F.3d at 972. There is simply no basis to evaluate the Forest Service's assertion that the sagebrush habitat is sufficient to sustain viable sage grouse populations when sage grouse cannot be found in the project area. Therefore, the Forest Service cannot reasonably argue that the proxy-on-proxy approach allows it to avoid separately monitoring sage grouse population trends, as sage grouse are its chosen MIS. *See Powell*, 395 F.3d at

[9]We have recognized that "monitoring difficulties do not render a habitat-based analysis unreasonable, so long as the analysis uses all the scientific data currently available." *McNair*, 537 F.3d at 998 (citation omitted). Here, however, the government does not cite any "monitoring difficulties" that prevent detection of the sage grouse. *Cf., id.* (noting that although surveys did not locate any animal, the Forest Service's method for detecting the bird may have been flawed). In this case, the Forest Service resorted to a habitat analysis, not because monitoring the sage grouse was difficult, but because there were admittedly no sage grouse in the project area to monitor.

1036 (noting that the proxy-on-proxy result is aimed at establishing "*species population trends*") (emphasis added). This is especially true where, as here, the forest plan requires monitoring of the MIS. *See Earth Island Institute v. USFS*, 442 F.3d 1147, 1175-76 (9th Cir. 2006) (rejecting the use of habitat monitoring where the forest plan required *population* monitoring), *abrogated on other grounds by Winter v. Natural Res. Def. Council, Inc.*, ___ U.S. ___, 129 S. Ct. 365, 375 (2008).

We do not share our dissenting colleague's perception that the Forest Service can meet its obligations to the environment by naming a virtually non-existent species to serve as a proxy for critical habitat in the targeted area. Far from usurping the agency's role, our opinion holds the agency to its statutory responsibility to fully study the effects of the planned agency action, and "to maintain viable populations of *existing* . . . species." 36 C.F.R. § 219.19 (emphasis added). It is unfathomable how the Forest Service could meet its responsibility to maintain existing species by selecting as a proxy a species that is virtually non-existent in the targeted area. A "report of two sage grouse being taken illegally from the project area [of 48,000 acres] in 2002," *see Dissenting Opinion*, p. 3730, just doesn't cut it.

Our colleague in dissent also criticizes this result as undermining the Forest Service's ability to develop one integrated plan for each unit of the National Forest System. *See Dissenting Opinion*, pp. 3731-32. The law does not support this contention. The Forest Service is bound to assess proposed actions on a "site specific" basis for compliance with the Forest Plan and NFMA. *See* 18 U.S.C. § 1604(i); *see also Inland Empire Pub. Lands Council v. U.S. Forest Serv.*, 88 F.3d 754, 757 (9th Cir. 1996) (explaining that both the Forest Plan and site-specific project stages must fully comply with the NFMA); *Or. Natural Desert Ass'n v. U.S. Forest Serv.*, 465 F.3d 977, 980 (9th Cir. 2006) (explaining that AMPs are plans for specific allotments). If the Forest Service decided to select

a project site consisting of the head ranger's backyard, *see Dissenting Opinion*, p. 3732, it must indeed analyze *that particular site* to determine the effects of the proposed action. If the MIS were absent from that site, it is difficult to see how an assessment of the MIS could demonstrate that the proposed action at that site complied with either the NFMA or a Forest Plan based on monitoring of the MIS.

Indeed, the record strongly suggests that the Forest Service's methodology in applying the proxy-on-proxy approach is flawed. In preparing its Biological Evaluation, the Forest Service expressly relied on the *Connelly Guidelines* in determining whether sage grouse habitat was sufficient. However, at least some of these guidelines assume the presence of birds as indicators of habitat health. *See Connelly Guidelines*, pp. 975-76. The *Connolly Guidelines* specifically note that "quantitative data from *population and* habitat monitoring are necessary to implement the guidelines correctly." *Id.* at p. 975 (emphasis added). Moreover, in the *Conservation Assessment*, p. 4-15, generated after the *Connelly Guidelines*, Connelly and his co-authors recognized that "populations of sage-grouse have been extirpated at places throughout their former range concomitant with habitat loss and degradation, so that the species' current distribution is less closely aligned with that of sagebrush." (citation omitted). Thus, the very guidelines used by the Forest Service militate against the Forest Service's assertion that evaluation of the sagebrush habitat in the complete absence of a sage grouse population meets its obligation under the NFMA to ensure population viability of the sage grouse and other sagebrush obligates.

In response to the argument that population monitoring is essential to a proper analysis of the project under the NFMA, the Forest Service repeatedly argues that population monitoring is outside the scope of the project, which is meant solely to consider updating grazing allotment protocols. However, to meet NFMA requirements, the Forest Service needed to consider and preserve the project species. As the *Conservation*

Assessment, p. 1-3, noted, "land-use perspectives have goals to maximize a particular function that may have objectives competing with other resource use. For example, evaluation of sagebrush communities primarily based on their ability to provide forage for livestock may result in extensive alterations that are unsuitable for greater sage grouse and other species dependent on sagebrush habitats." (citations omitted).

[6] Because the habitat proxy failed to track the MIS population, the proxy-on-proxy approach was unreliable in ensuring overall diversity in this case. In applying the proxy-on-proxy approach to evaluate whether the project complied with the Forest Service's duty to ensure wildlife diversity, the Forest Service did not adequately consider evidence that, despite the Forest Service's asserted compliance with the *Connelly Guidelines*, the sage grouse population continued to trend downward over several decades. This omission on the part of the Forest Service would suggest that the agency has "failed to consider an important aspect of the problem," or has offered an explanation for its decision that runs counter to the evidence in the record, and its decision is therefore arbitrary and capricious. *Motor Vehicle Mfrs. Assn., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

[7] The record further suggests that in addition to failing to monitor and incorporate sage grouse population data in its analysis, the Forest Service failed to adhere to the *Connelly Guidelines* in assessing the sagebrush habitat. In conducting its environmental analysis, the Forest Service failed to identify the nesting habitat in the project area later noted by Connelly and addressed in the *Connelly Review*. The Environmental Assessment stated that there are no known nesting grounds in the project area, noting that "[n]esting conditions . . . are not met within the project area during the sage grouse nesting season (May to mid-June)." The Forest Service concluded that the absence of nesting habitat "appears to be limited by growing conditions and plant physiology, not by past years' cattle grazing . . ." The Forest Service ostensibly

relied upon the *Connelly Guidelines* in reaching this conclusion. However, Connelly concluded that there were at least 1900 acres of nesting habitat in the project area. *See Connelly Review* pp. 11-12. Indeed, Connelly specifically stated that this area has "relatively high canopy coverage of grasses and forbs with adequate height for nesting habitat." *Connelly Review* p. 12. "In short," he concluded, "the area seems to have all the characteristics associated with productive sage grouse breeding habitat." *Id.* (citing the *Connelly Guidelines*).

[8] The discrepancy between the Forest Service's conclusions and Connelly's conclusions, where both ostensibly applied the *Connelly Guidelines*, strongly suggests that the Forest Service's method of measuring the sagebrush habitat is neither reasonably reliable nor accurate. *See Native Ecosystems*, 428 F.3d at 1250. This flaw in the Forest Service's methodology further undermines the reliability of the Forest Service's use of the proxy-on-proxy approach. *See Powell*, 395 F.3d at 1036 (holding that the proxy-on-proxy approach failed to comply with NFMA where habitat analysis was flawed).

The Forest Service's analysis of the 1900 acres of breeding habitat also contradicted Connelly's view of whether cattle grazing would interfere with the sage grouse breeding period. The AMPs would allow cattle grazing in the area as soon as June 1. The Forest Service noted in the Environmental Assessment that the nesting season usually takes place from May to mid-June. In the SIR, the Forest Service concluded that the grazing season was compatible with sage grouse breeding, because cattle generally did not graze in that region until late June.[10] However, the *Connelly Review* referenced scientific studies suggesting that "[t]he *hatching period* for most sage grouse populations generally occurs from mid-May

[10]The SIR also inaccurately described the nesting season as occurring in April and May, contrary to the statement in the Environmental Assessment.

until early June." *Connelly Review*, p. 4 (emphasis added). Connelly stated that "there is some evidence that grouse using high elevation area may not *begin* nesting until mid-May." *Id.* (emphasis added) (citation omitted). Connelly cited evidence that "5 of 6 nesting hens (83%) initiated nesting between 10 May and 17 June in the Sawtooth Valley of central Idaho," an area with a similar elevation range as the project area. *Id.* (citation omitted). He noted that yet another scientist "also reported that sage grouse may nest well into June . . . " *Id.* (citation omitted).

Our colleague in dissent does not deny that inconsistencies exist between the Forest Service's analysis and Dr. Connelly's conclusions. Instead, the dissent takes refuge in Dr. Connelly's fuzzy assurance that the contemplated actions "are generally consistent with the current sage-grouse management guidelines." *Dissenting Opinion*, p. 3733 (quoting *Connelly Review*). However, that general observation in no way erases the specific discrepancies between Dr. Connelly's studies and the Forest Service's analysis.

[9] In sum, under the facts of this case, where the MIS population has consistently declined and has not appeared in the Project Area in nearly two decades, and where the agency's analysis conflicted with that of the scientific experts, the Forest Service's use of the proxy-on-proxy approach to ensure viability of sagebrush obligates did not comply with the dictates of the NFMA to monitor population trends of the sage grouse as the selected MIS. *See Earth Island Institute*, 442 F.3d at 1175-76. The District Ranger's determination that the project would have minimal effects on the sage grouse was not derived from a reliable methodology. *See id.* at 1176 (holding that the Forest Service acted arbitrarily and capriciously by relying on inadequate habitat monitoring of the MIS). Accordingly, we reverse the district court's grant of summary judgment in favor of Defendants on the Plaintiffs' NFMA claim.

B. Compliance with NEPA

[10] "In contrast to NFMA, NEPA exists to ensure a process, not to mandate particular results." *Neighbors of Cuddy Mountain v. Alexander*, 303 F.3d 1059, 1063 (9th Cir. 2002) (citation omitted). "NEPA requires a federal agency 'to the fullest extent possible,' to prepare 'a detailed statement on the environmental impact' of 'major Federal actions significantly affecting the quality of the human environment.' " *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1185 (9th Cir. 2008) (citations and alteration omitted).

As a preliminary step, an agency may prepare an environmental assessment "in order to determine whether a proposed action may significantly affect the environment . . . " *Id.* (citation, alteration and internal quotation marks omitted). "If the agency concludes in the [environmental assessment] that there is no significant effect from the proposed project, the federal agency may issue a finding of no significant impact ('FONSI') in lieu of preparing an EIS." *Native Ecosystems Council*, 428 F.3d at 1239 (citations omitted). "If an agency decides not to prepare an EIS, it must supply a convincing statement of reasons to explain why a project's impacts are insignificant. The statement of reasons is crucial to determining whether the agency took a hard look at the potential environmental impact of a project." *Center for Biological Diversity*, 538 F.3d at 1220 (citations and internal quotation marks omitted).

[11] As discussed above, the Forest Service's use of the nonexistent sage grouse as an MIS to assess the project's impact on all sagebrush species' diversity was flawed. As a result, its overall study of the sage grouse habitat throughout the Environmental Assessment was similarly deficient. Just as the methodology applied by the Forest Service to measure habitat conditions did not meet the NFMA requirements, its flawed methodology in the complete absence of a sage grouse

population does not constitute the requisite "hard look" mandated by NEPA. *See Native Ecosystems Council v. USFS*, 418 F.3d 953, 964-65 (9th Cir. 2005) (recognizing that the Forest Service's reliance on incorrect assumptions and/or data violated NFMA and did not meet the agency's obligation to take a "hard look" under NEPA).

We cannot say that the results of the Environmental Assessment would have differed if an appropriate MIS for sagebrush obligates had been selected. In the absence of that analysis, we reverse and remand for the Forest Service to undertake a new or revised Environmental Assessment. *See Earth Island Institute*, 442 F.3d at 1153 (reversing and remanding due to defects in the Forest Service analysis).

Finally, we note that the Forest Service's decision not to supplement the Environmental Assessment following the *Connelly Review's* discussion of the 1900 acres of nesting habitat fails to comply with the agency's obligations to supplement an environmental assessment when "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1)(ii); *see Klamath Siskiyou Wildlands Ctr. v. Boody*, 468 F.3d 549, 560 (9th Cir. 2006).

The Forest Service's justifications for its decision not to further revise the Environmental Assessment are unpersuasive. Although the Forest Service suggests that it made no "estimate of the amount of breeding/nesting habitat in the allotments[,]" the record clearly reflects otherwise. The Forest Service in fact analyzed the impact of the project on late brood-rearing habitat. This approach was taken precisely because the sagebrush habitat in the project area was "not considered to be nesting habitat." However, Connelly's assessment of the project specified that the "[p]roposed management will likely have little effect on this habitat *unless* offtake results in average herbaceous height <18 cm in mid to

late June . . . " *Connelly Assessment* p. 13. The Environmental Assessment, predicated on the assumption that no nesting habitat existed in the project area, did not address anticipated offtake results under the project at all. Nor did the SIR discuss the potential effect of grazing on nesting habitat.

The Forest Service's efforts to minimize the importance of the potential nesting habitat further emphasizes the shortcomings of the Environmental Assessment. The Forest Service suggests that the 1900 acres identified by Connelly as potential breeding habitat is less reliable because Connelly "made this identification on the basis of the quality of the vegetation, not on any documented breeding in this area." However, this argument undermines the Forest Service's overarching position that reliance on habitat alone is sufficient to predict sage grouse viability. Moreover, it highlights the fact that the new information regarding potential nesting habitat directly contradicts the Environmental Assessment, which concluded without explanation that nesting habitat is unavailable *because of* the nature of the vegetation (and not as a result of grazing).

Ultimately, the Forest Service attempts to avoid preparing a supplemental environmental assessment by suggesting that weather presents an immediate bar to the use of the identified habitat for nesting. However, the scientists who identified this habitat considered weather patterns. For example, Connelly noted that late brood-rearing habitats "are generally used from July to early September but vary annually due to annual weather conditions." And Glenn Hockett, the NEC expert, specifically rejected the premise that weather conditions foreclose the use of the nesting habitat. In his declaration, he noted:

> Although the Antelope Basin/Elk Lake area does receive a lot of snow in the winter, it melts in the spring. The importance of ephemeral (temporary), water sources from melting snow banks may play an

> important role in the sage grouse habitat suitability for nesting and early brood rearing on the project area.

Hockett Decl., December 24, 2003, p. 6. Thus, the Forest Service's conclusory assertion in the DN/FONSI that nesting is impossible because of weather conditions is undermined by the scientists' observations.

Given the presence of potential nesting habitat and the corollary effect on that habitat of cattle grazing, the 2004 information impacted the project sufficiently that the environmental assessment should have been further revised. *See Klamath Siskiyou*, 468 F.3d at 560. We note that a revised environmental assessment considering the issues addressed above might come to a different conclusion than the original environmental assessment and necessitate the preparation of an environmental impact statement.

IV. CONCLUSION

[12] Because the methodology utilized by the Forest Service violated both the NFMA and NEPA, we reverse the district court's grant of summary judgment in favor of Defendants, and remand this case for the agency to prepare a new or supplemental environmental assessment consistent with this opinion.

REVERSED AND REMANDED.

KOZINSKI, Chief Judge, dissenting:

The majority oversteps the limited role of a court reviewing an agency's decision. First, it holds that the Forest Service's 216-page Environmental Assessment, six sage-grouse project-area surveys, and bevy of supplemental reports all amount to

a " 'clear error of judgment' that would render its action 'arbitrary and capricious' " under the National Forest Management Act. *The Lands Council* v. *McNair*, 537 F.3d 981, 993 (9th Cir. 2008). Second, on the basis of these same substantive criticisms, the majority holds that the Service's analysis was too flawed to satisfy the National Environmental Protection Act's "hard look" requirement. *See, e.g.*, *Native Ecosystems Council* v. *U.S. Forest Serv.*, 428 F.3d 1233, 1239 (9th Cir. 2005) ("Determining whether the Forest Service took the requisite 'hard look' is judged against the APA's arbitrary and capricious standard.").

But ours is only the modest task of ensuring the Service didn't perform an arbitrary and capricious analysis or come to an arbitrary or capricious conclusion. The Service did neither so the majority is wrong to overturn its decision.

I

The National Forest Management Act requires the Forest Service to develop a general resource management plan for every forest in the National Forest System. 16 U.S.C. § 1604. Forest Plans permit productive uses of forests (such as grazing) while preserving the habitat to support viable populations of all pre-existing plant and animal life. *Id.*; 36 C.F.R. § 219.19 (2000). To keep track of animal populations, the Forest Service designates a small number of "management indicator species" to monitor as proxies for all the forest's animals. 36 C.F.R. § 219.19(a)(1). And, rather than go out and individually count every animal, the Service often monitors indicator species' habitat as a proxy for their population. We've long endorsed this proxy-on-proxy approach. *See, e.g.*, *Inland Empire Public Lands Council* v. *U.S. Forest Serv.*, 88 F.3d 754, 761 (9th Cir. 1996).

Forest Plans, by definition, cover entire forests. Beaverhead-Deerlodge National Forest is the largest national forest in Montana and, at 3.36 million acres, it is roughly the

size of Connecticut. In the Beaverhead-Deerlodge National Forest Plan, sage grouse are the indicator species for sagebrush dependent animals forest-wide. The Antelope Basin/Elk Lake project site, at 48,000 acres (1.4% of the total forest), is just a bit larger than the District of Columbia. The Service analyzed the project's potential effects on the Forest Plan as NFMA required and, as the Forest Plan required, it used sage grouse as the indicator species for sagebrush-dependent animals.

But that isn't good enough for the majority, which holds that it was arbitrary and capricious for the Service to rely on sage grouse because grouse are "virtually non-existent in the project area." Maj. at 3718. When grouse are "absent from the project area . . . the Forest Service cannot reasonably argue that the proxy-on-proxy approach allows it to avoid separately monitoring sage grouse population trends." *Id.* at 3719. This rule—that a project analysis is arbitrary and capricious unless there is proof that each indicator species lives in the project area—is entirely new. It has at least four problems.

First, the majority doesn't apply its new requirement fairly to the record. The record does not show, and the Service does not concede, that there are *no* sage grouse in the Antelope Basin/Elk Lake project site. The record shows only that no sage grouse "have been observed in the project area in the past 15 years and sage grouse surveys in 2001-2003 did not find sage grouse or their sign." On the other hand, there is a report of two sage grouse being taken illegally from the project area in 2002. Rather than meaning that few sage grouse live in the project area, this could just mean the sage grouse in the project area are difficult to find. We've repeatedly approved habitat monitoring when the indicator species is difficult to detect. *See, e.g.*, *McNair*, 537 F.3d at 998. The majority notes that "the government does not cite any 'monitoring difficulties' that prevent detection of the sage grouse." Maj. at 3719 n.9. But why would it have? Courts have never required that showing before. We can hardly fault the Service

for not providing an unnecessary justification in defense of a well-established method. Creating new requirements and applying them retroactively is the kind of "gotcha" jurisprudence we may not engage in.

Second, the majority's rule conflicts with our cases approving proxy-on-proxy analysis without requiring the indicator species to be present in the project area. For example, in *Native Ecosystems Council* v. *United States Forest Service*, plaintiffs challenged the Service's performing proxy-on-proxy analysis without showing a viable population of the indicator species. 428 F.3d at 1250. We sided with the Service, explaining that "[o]ur case law permits the Forest Service to meet the wildlife species viability requirements by preserving habitat," provided that the habitat is monitored using reliable methods. *Id.*; *see also* 36 C.F.R. § 219.19 ("[H]abitat shall be managed to maintain viable populations . . . ."). This is plainly inconsistent with the majority's requirement that the Service prove that each indicator species lives in the project area. Indeed, requiring the Service to prove that each indicator species lives in the project area effectively requires it to directly monitor each animal's population—precisely the cumbersome task that proxy-on-proxy is meant to avoid.

Third, the majority's new rule will make it much harder for the Service to plan on a forest-wide scale, rely on forest-wide indicator species and administer general Forest Plans. Whenever one of the Forest Plan's indicator species is absent or impossible to detect, the Service will have to make an ad hoc exception. Today's majority requires a stand-in indicator species for a project area that is 1.4% of the total forest. Tomorrow's might do so for 0.14%. Pretty soon, before the Service can allow grazing in the head ranger's backyard it'll have to prove no adverse impact on the gophers. This flies in the face of NFMA. *See, e.g.*, 16 U.S.C. § 1604(f)(1) (The Forest Service shall "form *one* integrated plan for each unit of the National Forest System.") (emphasis added); *Idaho Sporting Cong., Inc.* v. *Rittenhouse*, 305 F.3d 959, 962 (9th Cir. 2002)

("[T]he 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.").

The majority argues that "[i]f the Forest Service decided to select a project site consisting of the head ranger's backyard . . . it must indeed analyze *that particular site* to determine the effects of the proposed action." Maj. at 3720-21. Nobody disputes that. *See* p. 3729-30 *supra*. It's at the *next* step of the analysis where we differ: the majority's requirement that the Service come up with all-new indicator species if it can't prove that the species listed in the Forest Plan live in the project site. The entire point of a forest-wide plan is that complying with its forest-wide standards will ensure forest-wide species and habitat preservation. Although the Service must ensure that grazing in the backyard doesn't hurt any sage grouse habitat, it's not required to demonstrate that sage grouse actually live in the yard.

Fourth, it's not clear that an indicator species' absence from a particular project area undermines the Service's habitat analysis. NFMA's goal is preservation of animal life across the forest, which is necessarily determined using the Forest Plan and the Forest Plan's indicator species. *See, e.g.*, *Inland Empire Pub. Lands Council* v. *U. S. Forest Serv.*, 88 F.3d 754, 757 (9th Cir. 1996) ("[S]ite-specific projects must be consistent with the stage-one, forest-wide plan."). If sage grouse are a proxy for all the animals that rely on sagebrush, and the Service can show that it's reliably maintaining sagebrush at the levels required for sage grouse, then NFMA has been satisfied. The absence of grouse in a particular part of the forest may make it harder to double-check these methods, but in this case nobody disputes the reliability of Connelly's *Guidelines*, which are part of the administrative record. John W. Connelly, et al., *Guidelines to Manage Sage Grouse Populations and Their Habitats*, 28 *Wildlife Society Bulletin* 967 (2000).

The majority also criticizes more specific aspects of the Service's scientific analysis. But bare disagreement doesn't make the Service's analysis arbitrary and capricious. *See Marsh* v. *Or. Natural Res. Council*, 490 U.S. 360, 378 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive."). This is especially true where, as here, the court bases its objections on the findings of a scientist who has actually endorsed the project being reviewed. The majority's central criticism is that "the very guidelines used by the Forest Service militate against the Forest Service's assertion" that sage grouse can be monitored by monitoring sagebrush. Maj. at 3721. The majority bases this assertion almost entirely on supposed inconsistencies between the Service's analysis and the work of Dr. Connelly (the Guidelines' author). *E.g.*, *id.* ("Connelly and his co-authors recognized that 'populations of sage-grouse have been extirpated at places throughout their former range concomitant with habitat loss and degradation, so that the species' current distribution is less closely aligned with that of sagebrush.' ").

But Dr. Connelly published a lengthy review of the Service's project analysis (also in the administrative record) explaining that "[t]he actions authorized by the Antelope Basin/Elk Lake Environment Assessment are generally consistent with the current sage-grouse management guidelines." John W. Connelly, *A Review of USFS Management Activities and Their Relationship to Sage-Grouse in the Antelope Basin/Elk Lake Area of Southwestern Montana* (September 15, 2004) at 14 (hereinafter *Connelly Review*). Connelly found that "[t]he conclusions in the Anteleope Basin/Elk Lake Allotment Management Plan EA . . . are reasonable and supported by the available evidence. Effects to sage grouse resulting from project implementation will likely be minimal. . . . The actions authorized . . . appear [to] take a pro-active approach to managing for potential sage grouse habitat." *Id.* at 14.

Courts are ill-equipped to second guess scientists, particularly scientists who are interpreting their own scientific evidence.

II

As the majority acknowledges, NEPA imposes no substantive requirements but merely "exists to ensure a process." Maj. at 3725 (quotation omitted). Nonetheless, the majority concludes that the Service's use of the Forest Plan's management indicator species to evaluate the Antelope Basin/Elk Lake Allotment Management Plan did not constitute "the requisite 'hard look' mandated by NEPA." Maj. at 3726. This NEPA holding doubles down on the same point the majority makes about NFMA—that no project can be undertaken without studying animals that actually live in the project site. But the majority never explains why violating NFMA's substantive requirements is necessarily enough to fail the more lenient NEPA requirement of a "hard look" that doesn't "rely on incorrect assumptions or data." *Native Ecosystems Council* v. *U. S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005). Even if NFMA limited the Service to indicator species that live in the project area (it doesn't), a species' absence doesn't necessarily make the Service's extensive analysis of the project area totally unreliable.

The majority also criticizes the Service for not supplementing its Environmental Assessment in the wake of the *Connelly Review*. But this criticism is hollow on two levels. First, it ignores the fact that the *Connelly Review* endorsed the Service's position. *See* pp. 3733-34 *supra*. Why (and how) would the Service "respond" to an unqualified endorsement? Take a bow? Second, the majority's premise—that the Service never addressed the *Review*'s finding that some of the project area was suitable for nesting, maj. at 3726-27—is factually inaccurate. The Supplemental Information Report explains on page five that "[c]attle do not enter the Elk Lake Allotment, where 1,900 acres of possible *nesting habitat* was identified, until June 26 or later." (emphasis added). It reiterates the point on

page twelve: "likelihood of disturbance by livestock to nesting sage grouse appears to be minimal as normally the range is not ready for livestock grazing until after the peak of sage-grouse egg incubation." The Service clearly considered the *Review*'s finding. It's just that the Service—like the *Review*'s author—concluded that the project was consistent with these findings. A hard look is a hard look no matter what the Service sees, even if judges see something else.

* * *

The majority acts as both legislature and biologist. It acts as legislature by inventing new NFMA requirements and as biologist by dissecting reports about sage grouse in a misguided effort at second-guessing those reports' authoring scientists. We should abstain from this sort of law office science. The Service has already printed hundreds of pages analyzing the Antelope Basin/Elk Lake's suitability for summer grazing. Both NFMA and NEPA were satisfied. We have no authority to stand in the way.