

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

IDAHO SPORTING CONGRESS, INC.;
ALLIANCE FOR THE WILD ROCKIES,
Plaintiffs-Appellants,

v.

DAVID RITTENHOUSE, in his official
capacity as Supervisor of the
Boise National Forest; UNITED
STATES FOREST SERVICE,
Defendants-Appellees.

BOISE CASCADE CORPORATION,
Defendant-Intervenor-Appellee.

No. 01-35403

D.C. No.
CV-00-00246-EJL

OPINION

Appeal from the United States District Court
for the District of Idaho
Edward J. Lodge, District Judge, Presiding

Argued and Submitted
April 1, 2002—Seattle, Washington

Filed September 17, 2002

Before: Dorothy W. Nelson, David R. Thompson and
Richard A. Paez, Circuit Judges.

Opinion by Judge D. W. Nelson;
Dissent by Judge Thompson

COUNSEL

Thomas J. Woodbury, Boise Idaho, attorney for the plaintiffs-appellants.

John A. Bryson, Mark R. Haag, Environment & Natural Resources Division United States Department of Justice, Washington D.C., Elise Foster, Kathryn Toffenetti, United States Department of Agriculture Office of the General Counsel, attorneys for the defendants-appellees.

OPINION

D.W. NELSON, Senior Circuit Judge:

Plaintiffs Idaho Sporting Congress, Inc. and Alliance for the Wild Rockies (collectively “Conservation Groups”) brought suit against the United States Forest Service (“Forest Service”) to enjoin two timber sales (“Lightning Ridge Sale and Long Prong Sale”) in the Boise National Forest (“Forest”) for violation of the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321—4370f, and for violation of the National Forest Management Act (“Forest Act”),¹ 16 U.S.C. §§ 1600—1687. The district court granted summary judgment in favor of the Forest Service on all claims. We have jurisdiction pursuant to 28 U.S.C. § 1291. For the reasons stated below we affirm in part and reverse in part. We remand to the district court with instructions to enjoin the Long Prong and Lightning Ridge timber sales consistent with this opinion.

¹For those conducting computerized searches, the Forest Act is sometimes referred to by its acronym NFMA.

I. Background and Procedural History

A. *The Boise National Forest*

The Forest covers approximately 2,272,000 acres in west-central Idaho, north and east of the capital city of Boise. Many free-flowing streams with outstanding wild, scenic, and recreational values traverse the Forest, including the middle and south forks of the Payette River, the south fork of the Salmon River, and the south fork of the Boise River. The Frank Church-River Of No Return Wilderness, which is the largest wilderness area in the contiguous 48 states, is located partially within the Forest, and thirty-eight roadless areas located in the Forest encompass over one million acres.

Over three hundred species of wildlife depend on the Forest for habitat, including black bear, mountain lion, grey wolf, river otter, golden eagle, and osprey. Cutthroat, rainbow, brook, and bull trout live in the creeks and rivers of the Boise, Payette, and Salmon River drainages. Chinook salmon spawn and hatch in the streams of the Forest and then travel down the Columbia River system through Oregon and Washington, returning to the Pacific Ocean to live until they embark on the long journey upstream, returning again to lay their eggs in the cold-water washed gravel beds of South Fork Salmon River, Johnson Creek, Sulphur Creek, Elk Creek, and Bear Valley Creek.

The Forest supports myriad recreational activities, including fishing, hunting, camping, and white-water rafting. Commercial exploitation of Forest resources occurs mainly in the form of timber harvest. Logging and recreational uses of the Forest help support the economies of surrounding communities.

B. *The National Forest Management Act*

The Forest Service manages the Forest, and is required by statute and regulation to safeguard the continued viability of wildlife in the Forest. In carrying out its management responsibilities, the Forest Service must comply with the mandates of the Forest Act, 16 U.S.C. §§ 1600—1687. The Forest Act requires the Forest Service to develop a land and resource management plan (“forest plan”) for each forest that it manages. 16 U.S.C. § 1604. The forest plan must provide for multiple uses of the forest, including recreation, range, timber, wildlife and fish, and wilderness. 16 U.S.C. § 1604(e)(1). In providing for multiple uses, the forest plan must comply with substantive requirements of the Forest Act designed to ensure continued diversity of plant and animal communities and the continued viability of wildlife in the forest, including the requirement that “wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” 16 U.S.C. § 1604(g)(3)(B); 36 C.F.R. § 219.19 (1999).² In order to maintain viable populations of wildlife, “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.

In summary, all management activities undertaken by the Forest Service must comply with the forest plan, which in turn must comply with the Forest Act, which requires that wildlife habitat must be managed to maintain viable populations of native and desired non-native wildlife species. In order to ensure compliance with the forest plan and the Forest Act, 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. *Inland Empire Pub.*

²All citations to the Code of Federal Regulations are to the 1999 version, which applies to the claims in this case.

Lands Council v. United States Forest Serv., 88 F.3d 754, 757 (9th Cir. 1996) (citing 16 U.S.C. § 1604(i)).

C. The 1990 Land and Resource Management Plan for the Boise National Forest and the “Proxy on Proxy” Management Approach

In 1990, the Forest Service adopted a Land and Resource Management Plan to govern its management of the Boise National Forest (“Forest Plan”). The Boise Forest Plan employs a “proxy on proxy” approach to meet the requirement of maintaining viable wildlife populations. First, seven “management indicator species” were selected to represent the needs of various types of wildlife throughout the Forest. For example, the pileated woodpecker was selected to represent a “wide range of large snag users.” By monitoring the health of the pileated woodpecker population, the health of a wide range of other species which use similar habitat would be monitored as well. In this way, the pileated woodpecker acts as an indicator, or proxy, for many other species. This indicator species approach is the first level of proxy.

Next, rather than actually monitoring the population of each indicator species to determine if viable populations are being maintained, the Forest Service designates certain types and quantities of habitat as sufficient to maintain viable populations of the selected indicator species. Then “[h]abitats used by management indicator species will be monitored to determine what population changes, if any, are induced by management activities.” For example, the Forest Service determined that each breeding pair of pileated woodpeckers would require a 300 acre block of “mature timber”, which would in turn contain at least 100 acres of “old growth” forest.

The Forest Plan sets out detailed and exacting requirements for old growth forest. It defines old growth as a “stand of trees that is past full maturity and showing signs of decadence.”

The Forest Plan also requires that, to qualify as old growth, a stand of trees must be at least ten acres in size and contain at least 20 trees per acre greater than 20" in diameter at breast height and 30 trees per acre 10" to 20" in diameter at breast height. There also must be at least 15 tons per acre of downed or dead trees and two logs per acre greater than 12" in diameter at breast height. Finally, there must be at least two standing dead trees (snags) per acre greater than 20" in diameter at breast height and greater than twenty feet tall.

In order to support the minimum viable population of pileated woodpeckers, which the Forest Service determined to be 90 breeding pairs, 90 blocks of such forest would need to be maintained in a well distributed pattern throughout the Forest. These blocks of habitat are the second level of proxy, each block "counting" as the presence of a breeding pair of pileated woodpeckers, which in turn indicates (in theory) the presence of numerous other species which share similar habitat needs.

For management purposes, the Forest is divided into fifty-nine management areas. The larger management areas are in turn divided into compartments. Management areas vary in size from about 2,000 acres to over 135,000 acres. Compartments average about 5,000 to 7,000 acres. The Forest Plan calls for one pair of pileated woodpeckers to be located in each management area less than 50,000 acres and two pairs to be located in each management area over 50,000 acres. In other words, consistent with the proxy on proxy approach, one 300 acre block of mature forest containing 100 acres of old growth must be identified and preserved in each management area less than 50,000 acres and two such blocks must be identified and set aside in each area over 50,000 acres. Additionally, in order to comply with the Forest Act and its implementing regulations, these blocks "must be well distributed so that those individuals [pileated woodpeckers] can interact with others in the planning area." 36 C.F.R. § 219.19. At a minimum, this means that the offspring of breeding pairs must

be able to find each other and find suitable breeding and foraging habitat so that the species can survive.

Consistent with the established needs of the pileated woodpecker, the Forest Plan calls for a minimum of 27,000 acres (90 breeding pair multiplied by 300 acre blocks) to be set aside for pileated woodpecker habitat. To meet this requirement, the Forest Plan calls for “[d]edication of] 55,000 acres of old-growth habitat, well-distributed throughout the forest, by the year 1991.”³ The Forest Plan also requires that when “significant” areas of old growth are lost to fire, new acres must be rededicated. The parties disagree as to how much forest must be lost to fire before it is considered significant, and disagree as to how quickly the Forest Service must act to rededicate acres lost to fire.

D. *The National Environmental Policy Act*

NEPA requires the preparation of a detailed Environmental Impact Statement (“EIS”) for all “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C). NEPA regulations and case law require disclosure of all foreseeable direct and indirect impacts. 40 C.F.R. § 1502.16; *City of Davis v. Coleman*, 521 F.2d 661, 676 (9th Cir. 1975). Agencies must adequately consider the project’s potential impacts and the consideration given must amount to a “hard look” at the environmental effects. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 374 (1989). To determine whether a specific agency action will have a signif-

³In addition to the pileated woodpecker, the red-backed vole (another management indicator species) uses old growth habitat and requires a minimum of 90,000 acres to sustain minimum viable populations. While the record is not clear, it appears that the dedication of 55,000 acres by 1991 was intended as a first step in meeting habitat needs of these two species. In any event, it is clear that dedication of 55,000 acres was called for in order to serve the needs of the pileated woodpecker and the parties appear to agree that the Forest Service did dedicate 55,000 acres in an effort to meet the pileated woodpecker’s needs.

ificant effect, an Environmental Assessment (“EA”) may be prepared. If the EA determines that there will be no significant effect, then an EIS need not be prepared. Unlike the Forest Act, NEPA imposes no substantive requirements and is designed only to force agencies to publicly consider the environmental impacts of their actions before going forward.

E. *The Long Prong and Lightning Ridge Timber Sales*

In 1999, the Forest Service approved the two timber sales at issue here, the Lightning Ridge sale involving timber harvest from approximately 860 acres in Management Area 35, and the Long Prong sale involving timber harvest from approximately 2000 acres in Management Area 53. The Conservation Groups brought administrative appeals challenging the two sales, and ultimately brought suit in federal district court challenging the two sales for failure to comply with the Forest Act and NEPA.

On cross motions for summary judgment, the district court held that the Conservation Groups had failed to exhaust administratively most of their claims and therefore could not pursue them in federal court. With respect to several other claims, the district court held that they were barred by claim preclusion because they were identical to claims previously litigated in a prior lawsuit between the same parties. The district court held that the remaining claims failed on their merits. The district court therefore granted summary judgment on all claims in favor of the Forest Service. The Conservation Groups timely appealed.

II. Standard of Review

We review the district court’s determination of summary judgment *de novo*. *Or. Natural Res. Council v. Lowe*, 109 F.3d 521, 526 (9th Cir. 1997) (per curium). We must determine whether any genuine issue of material fact exists precluding summary judgment and whether the district court

correctly applied the substantive laws. *Far Out Prods., Inc. v. Oskar*, 247 F.3d 986, 992 (9th Cir. 2001). We review claims brought pursuant to the Forest Act and NEPA under the standards set out in the Administrative Procedure Act, and must set aside agency action found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. § 706. We review factual disputes implicating substantial agency expertise under the arbitrary and capricious standard; legal issues, however, are reviewed under the reasonableness standard. See *Northcoast Envtl. Ctr. v. Glickman*, 136 F.3d 660, 666-67 (9th Cir. 1998); *Price Rd. Neighborhood Ass'n v. United States Dep't of Transp.*, 113 F.3d 1505, 1508 (9th Cir. 1997).

III. Discussion

A. Claim Preclusion and Administrative Exhaustion

With respect to the claims prosecuted on appeal, we hold that the claims are not barred by claim preclusion, and were administratively exhausted.

1. Claim Preclusion

The district court correctly identified the controlling principles of claim preclusion: “*Res Judicata*, also known as claim preclusion, bars litigation in a subsequent action of any claims that were raised or could have been raised in the prior action.” *Western Radio Servs. Co. v. Glickman*, 123 F.3d 1189, 1192 (9th Cir. 1997). In order for claim preclusion to apply there must be: 1) an identity of claims; 2) a final judgment on the merits; and 3) identity or privity between parties. *Id.* Here, the Conservation Groups previously made arguments based on very similar legal theories in challenges to previous timber sales. See *ISC v. Rittenhouse*, CV-98-0493-S-MHW (D. Idaho 1999) (“*Rittenhouse I*”).

While there is a similarity of legal theories in the two cases, *Rittenhouse I* concerned *different* timber sales. *Rittenhouse I*

challenged the Roberts Gulch, Prince John, Paradise, Myrtle Creek, and Mack Pine timber sales, which are located in different areas of the Forest than the sales at issue here. With the exception of the Prince John sale, the sales in *Rittenhouse I* were located in entirely different management areas of the Forest. The Lightning Ridge and Long Prong areas present their own unique factual issues relating to the management of old growth habitat. Hence, the claims presented in *Rittenhouse I* are not identical to the claims presented here. *See Hiser v. Franklin*, 94 F.3d 1287, 1292 (9th Cir. 1996) (holding that claim preclusion did not apply even though the legal theory at issue in that case was addressed in a previous case, because the case at issue was “based on a different set of operative facts”).

2. *Administrative Exhaustion*

The Administrative Procedure Act requires that plaintiffs exhaust available administrative remedies before bringing their grievances to federal court. 5 U.S.C. § 704. Statutes and regulations governing actions of the Forest Service reiterate the administrative exhaustion requirement. 7 U.S.C. § 6912(e); 36 C.F.R. § 215.20. The rationale underlying the exhaustion requirement is to avoid premature claims and to ensure that the agency possessed of the most expertise in an area be given first shot at resolving a claimant’s difficulties. *See Saulsbury Orchards & Almond Processing, Inc. v. Yeutter*, 917 F.2d 1190, 1195 (9th Cir. 1990). Consistent with this purpose, we have recognized that claimants who bring administrative appeals may try to resolve their difficulties by alerting the decision maker to the problem in general terms, rather than using precise legal formulations. *See Native Ecosystems Council v. Dombeck*, ___ F.3d ___, ___ (9th Cir. 2002). Claims must be raised with sufficient clarity to allow the decision maker to understand and rule on the issue raised, but there is no bright-line standard as to when this requirement has been met and we must consider exhaustion arguments on a case-by-case basis. *Id.*

The district court held that a number of the Conservation Groups' claims were not properly exhausted. Two of these claims remain at issue in this appeal: (1) the claim that the Forest Service did not disclose whether it had established habitat conservation plans for sensitive species as required by the Forest Service handbook; and (2) the claim that the Forest Service failed to conduct population surveys or monitoring of old-growth-dependent management indicator species.

As to the habitat conservation plan claim, the Conservation Groups fail to point out where in the record they raised this issue before the Forest Service and we have been unable to locate any reference to this claim in the administrative record. Since the Forest Service was not given notice of this claim sufficient to allow it to resolve the claim, the claim was not properly exhausted and is not subject to judicial review.

As to the population survey/monitoring claim, the Conservation Groups raised the following arguments before the Forest Service as disclosed in the administrative record:

As you know, an issue of particular importance to the ISC is protection of old growth habitat and old growth dependent species [Y]ou have failed to discuss how habitat for your old-growth MIS will be extirpated while habitat for old-growth dependent species will remain unharmed.

The [Lightning Ridge EA] violates NEPA and NFMA because it completely fails to disclose and analyze effects on sensitive species No where in the EA can one determine the forest-wide impacts accumulated to by [sic] this project to old growth sensitive species.

[The Long Prong EIS] fail[ed] to explain the direct, indirect, and cumulative effects of the alternatives on old growth dependent and Sensitive species.

While these references do not specifically cite to the Code of Federal Regulations requirement that “[p]opulation trends of the management indicator species will be monitored and relationships to habitat changes determined,” 36 C.F.R. § 219.19(a)(6), the Conservation Groups clearly expressed concern that the proposed logging sales would harm management indicator species such as the pileated woodpecker.

The Conservation Groups’ grievance is also fairly described as being directed at the Forest Service’s perceived failure to specify adequate procedures to measure the impact of the proposed logging sales on management indicator species. We hold under these circumstances that it would be unreasonable to require that the Conservation Groups incant the magic words “monitor” and “population trends” in order to leave the courtroom door open to a challenge citing the requirements of section 219.19, as the Conservation Groups do now.

B. *National Forest Management Act Claims*

[1] While the Conservation Groups make numerous assaults on the Lightning Ridge and Long Prong sales, and the organization of their arguments is less than a model of clarity, their claims essentially are that the Forest Service’s approval of the sales was not in accordance with law because the Forest Plan’s old growth species viability standard is invalid, and, in any event, the standard is not being met. All site specific actions must be consistent with adopted forest plans. *Inland Empire*, 88 F.3d at 757. Here, the site specific analyses of timber sales depend on the Forest Plan old growth viability standard to insure that the Forest Act’s requirement of maintaining viable populations of native species, including old growth dependent species, is met. If the Forest Plan’s standard is invalid, or is not being met, then the timber sales that depend upon it to comply with the Forest Act are not in accordance with law and must be set aside. *See id.*

First, the Conservation Groups argue that the old growth viability standard is invalid because the Forest Service's own report ("The 1996 Monitoring Report") issued to reassess the Forest Plan shows that the old growth standard is no longer tenable because new scientific information invalidates the Forest Plan assumptions regarding the viability of old growth dependent species.

Next, they argue that the Forest Plan requirements are not being met because recent uncharacteristic forest fires have destroyed a significant amount of the 55,000 acres of old growth habitat set aside in the Forest Plan, and the Forest Service has failed to rededicate replacement acres as required by the Forest Plan.

Finally, the Conservation Groups argue that the entire proxy on proxy approach, upon which the Forest Plan depends, is invalid because it does not comply with the requirements of 36 C.F.R. § 219.19(a)(6) that "[p]opulation trends of the management indicator species will be monitored and relationships to habitat changes determined." The Conservation Groups argue that the Forest Service must monitor the actual animals included in the seven management indicator species and may not use the existence of a predetermined amount of designated habitat as a proxy for the existence of an individual animal.

1. *The 1996 Monitoring Report*

In order to ensure that forest plans remain in compliance with the Forest Act, the Forest Service is required to assess each forest plan and issue a monitoring report every five years. 36 C.F.R. § 219.10(g). Among other things, these periodic monitoring reports assesses the forest plan's compliance with the Forest Act requirement that "wildlife habitat shall be managed to maintain existing native and desired non-native species in the planning area." 36 C.F.R. § 219.19.

In 1996, the Forest Service issued a five year monitoring report for the Boise Forest Plan (“Monitoring Report”). The Monitoring Report reveals that changed conditions and new scientific understanding render the Forest Plan inadequate over a wide range of forest management issues. For example, the Monitoring Report finds “inaccurate and outdated” the approach to stream management in the Forest Plan that allowed mud generated by road building and logging to ruin gravel stream beds where spawning fish lay their eggs. In general, the report finds that there is “little basis” for the approach in the Forest Plan to ensuring the continued existence of fish in the streams of the Forest, and that the Forest Plan does not include factors that “research has shown are critical to fish survival.” The Monitoring Report also finds that the Forest Plan overestimates the amount of timber that can safely be harvested by 28 to 36 percent.

Relevant to the issue now before us, Forest Service documentation prepared in conjunction with the Monitoring Report and upon which the monitoring report was based indicates in no uncertain terms that the Forest Plan old growth dependent species viability standard is, as the Conservation Groups claim, invalid. As discussed above, the Forest Plan old growth dependent species viability standard sets aside blocks of old growth habitat for the pileated woodpecker, a management indicator species. By monitoring these blocks of habitat the Forest Service seeks to ensure the continued existence of healthy pileated woodpecker populations in the Forest, which in turn indicates the continued health of many other species that use similar habitat. The same strategy is used for the red backed vole, another management indicator species that uses old growth habitat. Monitoring Element D—Adequacy of Forest Plan Direction for Management Indicator Species—reveals the following conclusions of Forest Service scientists with regard to the pileated woodpecker and red-backed vole:

Assumptions regarding the sustainability of dedicated old growth appear invalid. New information

regarding dispersal distances and disturbance effects suggest the amount of dedicated old growth in the Forest Plan may be inadequate. New information also suggests that old growth definitions in the Forest Plan do not reflect diversity of old growth on the ground.

...

Analysis shows that the current Forest Plan approach to sustaining old growth through the planning period is invalid.

In addition, Monitoring Report Question D shows that changed conditions, in the form of extensive forest fires occurring after the original 55,000 acres was dedicated, mean that even the invalid standard is not being met.

Monitoring Report Question D states the following:

Assumptions regarding the sustainability of old growth habitat “dedicated” in the Forest Plan appear inadequate. Uncharacteristic wildfires have altered 25 percent of the compartments containing dedicated old growth, while another 15 percent do not have the capability to meet old-growth definitions. An additional 45 percent of the compartments are at highest risk of uncharacteristic fire, based on the Forest’s recent hazard/risk assessment (USDA Forest Service, Boise NF, 1996). Consequently, 40 percent of the compartments currently do not meet Forest Plan expectations for old growth, while Forest Plan expectations may not be met in the future in another 45 percent.

As already noted, the Forest is divided into management areas and the management areas are in turn divided into compartments averaging 5,000 to 7,000 acres in size. In order to

accomplish the dedication of 55,000 acres of old growth habitat, the Forest Service dedicated throughout the Forest selected compartments purportedly containing old growth suitable for pileated woodpecker habitat. The Monitoring Report excerpt quoted above reveals that 40 percent of those compartments no longer meet the Forest Plan's expectations for old growth habitat.

The Forest Service argues that the final sentence of Monitoring Report Question D allows it to continue logging activities even though the Forest Plan approach to sustaining old growth is invalid and is not being met because Question D concludes, "unless habitat is extensively changed through wild-fire (as determined through post-fire evaluation of any future large-scale events) or management activities, short-term (i.e. until the Forest Plan is revised) viability for old-growth dependent species is not threatened."

[2] However, despite this concluding sentence the Monitoring Report clearly shows that the Forest Service's management of old growth dependent species does not comply with the Forest Act, and that the Forest Plan must be revised or amended in order to bring management into compliance with law. The Monitoring Report indicates that a "changed condition" occurs when the Forest Service's approach to a particular management issue no longer complies with the Forest Act. Monitoring Report Question D demonstrates that a changed condition has indeed occurred for the two old growth management indicator species, the red backed vole and the pileated woodpecker. Therefore there is no doubt that the Forest Service's management of these two species does not comply with the law. Despite the Forest Service's statement that viability for old growth species is not threatened in the short term, a changed condition has occurred and this changed condition has placed its management of old growth dependent species out of compliance with the Forest Act—in other words not in accordance with law.

[3] The Forest Service further argues that its requirement to rededicate acres of old growth lost to fire has not been triggered. It points out that the Forest Plan requires rededication only when “significant” areas of old growth are lost to fire. It argues that its rededication requirement has not been triggered because the losses outlined in the Monitoring Report are not “significant.” We consider the Monitoring Report’s conclusion that “40 percent of the [dedicated] compartments currently do not meet Forest Plan expectations for old growth” to establish a significant loss.

[4] Thus, the record strongly indicates that the Forest Plan standard itself is invalid and that changed conditions removed a significant number of compartments of dedicated old growth, resulting in non-compliance with the standard because the Forest Service has failed to rededicate old growth. To this mounting body of evidence we add the following: evidence that many of the compartments purportedly containing old growth, which were set aside to meet the old growth dedication requirement, never contained old growth in the first place.

The Lightning Ridge timber sale area is located within Management Area 35. When the Forest Plan was developed, seven compartments were set aside in management area 35 to meet the old growth dedication requirement, including the requirement that habitat for two breeding pairs of pileated woodpeckers be set aside in each management area over 50,000 acres (Management Area 35 covers 74,984 acres). As the Lightning Ridge EA explains:

The Forest Plan provides definitions for old growth. In development of the plan, published in 1990, numerous areas were identified to be managed as old growth habitat to provide for species diversity across the forest. The Forest Plan direction for Management Area 35 stipulates managing a total of 1,280 acres of

old growth habitat in compartments 6702, 6712, 6713, 6715, 6717, 6722, and 6723.

The record reveals, through the administrative hearing officer's response to the Conservation Groups' comments, that the 1,280 acres of old growth habitat in Management Area 35 were identified through aerial photography interpretation. However, later and closer analysis has shown that there is no habitat meeting the Forest Plan's definition of old growth in these seven compartments, or anywhere in Management Area 35.

As the Lightning Ridge EA explains:

[D]etailed stand information is necessary to determine if a stand provides old growth characteristics as defined [by the Forest Plan]. Such information is only available for 28,779 acres (38 percent) of the management area None of the stands that have been examined within the cumulative effects area [Area 35] currently provide old growth characteristics as defined by the Forest Plan.

The Assessment then goes on to add that "Few, if any, of the unexamined stands within the cumulative affects area would likely meet the Forest Plan definitions [for old growth]." Because there is no old growth within examined stands and it is unlikely that any of the unexamined stands contain old growth, the Assessment concludes that "there are no stands within the analysis area that currently provide old growth characteristics as defined by the Forest Plan."

[5] While we give deference to an administrative agency's judgment on matters within its expertise, here the Forest Service's own scientists have concluded that the "Forest Plan approach to sustaining old growth through the planning period is invalid;"⁴ have demonstrated that compartments of forest

⁴In addition to this conclusion expressed by a team of Forest Service scientists in the 1996 Monitoring Report, at least one Forest Service scien-

land identified in the Forest Plan to contain old growth in fact did not contain it; and have concluded that a significant amount of the dedicated compartments have been damaged by fire. We hold therefore that the approval of the Long Prong and Lightning Ridge timber sales was not in accordance with law because at the time the sales were approved the Forest Plan did not comply with the requirement that “wildlife habitat shall be managed to maintain existing native and desired non-native species in the planning area.” 36 C.F.R. § 219.19. Specifically, we hold that the Forest Plan standard for maintaining the viability of old growth dependent species was invalid.⁵ Further, we hold that the Forest Service failed to comply with the Forest Plan standard for maintaining the viability of old growth dependent species because the Forest Service failed to rededicate acres of old growth lost to fire and failed to take adequate steps to insure that compartments identified as containing dedicated old growth do, in fact, contain it. Because site specific actions, including approval of the Long Prong and Lightning Ridge sales, depend on a valid and adequately implemented Forest Plan old growth species viability standard to ensure compliance with the Forest Act’s requirement of maintaining viable populations of native species, and the viability standard here was both invalid and inadequately implemented, the sales must be set aside and logging thereunder enjoined.⁶

tist has concluded (in the Lightning Ridge EA) that pileated woodpecker habitat must be assessed independent of any old growth analysis.

⁵It is important to recall that the Forest Service has chosen to forgo monitoring of indicator species populations and relies on monitoring habitat as a proxy for population. Because it has chosen this proxy-on-proxy approach, the fact that it has employed an erroneous scientific methodology, as discussed *infra*, in selecting and monitoring habitat violates the Forest Act because the Forest Plan does not provide for population monitoring to ensure that sufficient numbers of the management indicator species are being preserved.

⁶The Long Prong EIS acknowledges that the Long Prong Sale will displace four out of five breeding pairs of pileated woodpeckers in the area.

2. *Forest Service Arguments and R4 Old Growth*

Subsequent to the approval of the Forest Plan, the Forest Service devised a new definition for old growth that is different from the Forest Plan definition. This new definition of old growth is called “R4 Old Growth,” after the Region Four Task Force that developed it. The Region Four Task Force was charged with defining old growth from an ecological and scientific perspective. Relevant here is the fact that some areas of the Forest that do not meet the Forest Plan definition of old growth do satisfy the R4 definition.

Since R4 was developed after the Forest Plan was promulgated, the R4 definition is not recognized by the Forest Plan. Furthermore, the Lightning Ridge EA discloses that “no current inventory of the acres of old growth forest land as defined by these definitions [R4] currently exists” The Lightning Ridge EA also notes that possible use of the R4 old growth definition for future Forest management “may lead to somewhat different old growth management directions and decisions [than those contained in the Forest Plan].”

The Conservation Groups charge the Forest Service with playing a shell game, unlawfully substituting the R4 definition for the Forest Plan definition when it suits the Forest Service’s desired end result of approving a timber sale. We have seen no evidence of bad faith on the part of the Forest Service and reject the notion that the Forest Service has intentionally employed the R4 definition to evade its responsibilities under the Forest Act. To the contrary, the Forest Service has shown

This is alarming given that the Forest Service does not have in place valid standards to ensure that a minimum amount of breeding pairs survive throughout the Forest. The Lightning Ridge EA concludes that the Lightning Ridge Sale will not have an adverse effect on any of the species at issue. However, the Lightning Ridge EA does not suffice to show compliance with the Forest Act because it does not assess pileated woodpecker habitat by means of a valid forest-wide standard.

itself to be quite candid where it recognizes possible non-compliance with the Forest Act. The 1996 Monitoring Report shows that Forest Service scientists thoroughly critiqued the Forest Plan and candidly acknowledged that much of the Forest Plan was in need of radical revision in order to comply with the Forest Act.

The Forest Service, on the other hand, does wield the R4 definition as a two edged sword. First it argues that in a given area it cannot be depleting old growth habitat because no habitat meeting the Forest Plan's definition will be harvested. Then it adds the caveat that R4 old growth will be harvested but enough R4 old growth will be left after harvest to meet the old growth dedication requirement for that area. As the Forest Service's brief puts it:

[N]either the Lightning Ridge Project nor the Long Prong Project involve the harvesting of any timber stand currently meeting the Forest Plan definition of old growth. And even if the more inclusive Region 4 old growth definition were substituted for the Forest Plan old growth definition, the record demonstrates that there will be more than enough acres of Region 4 old growth remaining after the projects are complete to satisfy the Forest Plan's provisions governing rededication of old growth in Management areas 35 and 53.

(internal citations omitted). This argument apparently anticipates the conclusion that old growth dedication, and ultimately the requirements of the Forest Act, cannot be satisfied using the Forest Plan definition alone. We know that this is true at least for area 35 since there is no Forest Plan old growth in area 35, despite the Forest Plan's requirement that enough old growth be set aside to support at least two pairs of pileated woodpeckers in area 35.

The Forest Service's attempt to save the two timber sales by employing the R4 definition, however, must fail. As noted above, there is no inventory of R4 old growth, and there certainly is no plan in place setting aside blocks of R4 old growth well distributed throughout the Forest so that "individuals [reproductive animals] can interact with others in the planning area." 36 C.F.R. § 219.19. While the Forest Service argues that it is saving a sufficient quantity of R4 old growth from logging in the Lightning Ridge and Long Prong areas, it is not acting according to a forest-wide plan as required by law. It is looking only at two small isolated areas, without any knowledge of the geographic or ecological relationship of stands of R4 in the Lightning Ridge and Long Prong areas to the distribution of R4 throughout the Forest. The Forest Service's justification here is directly contrary to one of the fundamental purposes of Congress in enacting the Forest Act: that the National Forest System be managed with "a systematic interdisciplinary approach," by means of "one integrated plan for each unit of the National Forest System." 16 U.S.C. § 1604.⁷

3. *The Proxy on Proxy Approach*

The Conservation Groups argue that the following two sections of the Code of Federal Regulations require the Forest Service to monitor the population trends of management indicator species in addition to monitoring habitat:

In order to estimate the effects of each alternative on fish and wildlife populations, certain vertebrate and/or invertebrate species present in the area shall be identified and selected as management indicator species and the reasons for their selection will be stated.

⁷We do not suggest that the Forest Service must adopt the R4 definition of old growth. It must, however, put in place and observe with respect to each site specific action a valid forest-wide standard for ensuring viable populations of old growth dependent species.

These species shall be selected because their population changes are believed to indicate the effects of management activities. 36 C.F.R. § 219.19(a)(1).

Populations trends of the management indicator species will be monitored and relationships to habitat changes determined. 36 C.F.R. § 219.19(a)(6).

In addition to these two sections, the Conservation Groups point to § 219.19(a)(2), which requires that “[p]lanning alternatives shall be stated and evaluated in terms of *both* amount and quality of habitat *and* of animal population trends of the management indicator species.” 36 C.F.R. § 219.19(a)(2) (emphasis added).

The Forest Service, on the other hand, points out that this Court has interpreted these regulations to allow the evaluation of habitat as a proxy for monitoring population trends. *Inland Empire*, 88 F.3d at 761.⁸ However, in *Inland Empire* the Court was satisfied that the Forest Service’s methodology was sound, *id.*, and the opinion states that “[*i*n this case, the Service’s methodology reasonably ensures such populations.” *Id.* (emphasis added). We cannot say the same thing here. In the case before us, the Monitoring Report shows that the Forest Service’s methodology does not reasonably ensure viable populations of the species at issue. In addition to the conclusions of the Monitoring Report, the record demonstrates that the Forest Service’s methodology for dedicating old growth is so inaccurate that it turns out there is no old growth at all in management area 35, where the Forest Service has purported to dedicate 1280 acres of old growth.

⁸We are aware that other courts have held that § 219.19 does not allow use of habitat as a proxy for population. *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999). *See also Utah Environmental Congress v. Zieroth*, 190 F.Supp.2d 1265, 1272 (D. Utah 2002) (holding that § 219.19 unambiguously requires collection of population data); *Forest Guardians v. U.S. Forest Service*, 180 F.Supp.2d 1273 (D.N.M. 2001) (same).

We must also add to the list of factors preventing us from accepting the Forest Service methodology in this case as reasonably ensuring populations of old growth species, the conclusion of the Forest Service's wildlife expert, expressed in the Lightning Ridge EA, that "[a]lthough old growth habitat and pileated woodpecker habitat are often assumed to be one and the same, the two may or may not overlap depending upon stand characteristics." Based on this and other factors, the expert concluded that "it is necessary to assess pileated habitat independent of any old growth analysis [including both R4 and Forest Plan definitions]." No such statements were made in *Inland Empire*, and none of the scientific evidence disclosed by the Monitoring Report and the record in this case was present in *Inland Empire*. Here, the Forest Service's own scientific evidence invalidates the use of the proxy on proxy approach.

In *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146 (9th Cir. 1998), this Court also held that under the circumstances of that case the Forest Service could use habitat as a proxy for population if the Forest Service performed further analysis and showed that "no appreciable habitat disturbance" would result from the planned activity. *Id.* at 1154. However, like *Inland Empire*, there was no evidence in *Thomas* that the Forest Service's methodology for monitoring habitat was arbitrary and capricious. Thus *Thomas* is also distinguishable from the case before us.

The present case is then distinguishable on its facts from both *Inland Empire* and *Thomas*. We hold that under the facts of this case, the Forest Service's use of habitat as a proxy for population monitoring of the management indicator species was arbitrary and capricious. We are aware that a revised Forest Plan will likely be used to evaluate future timber sales and other site-specific activities in the Forest. We are not privy to its contents but have confidence in the Forest Service's ability and commitment to produce a Forest Plan in keeping with the prescription for significant changes in Forest Plan direction

spelled out in the 1996 Monitoring Report. While this Court has held that monitoring of populations of management indicator species is not always required, we repeat, as this Court previously stated in *Inland Empire*, that “we would encourage such analysis.” *Inland Empire*, 88 F.3d at 761 n.8.

C. *National Environmental Policy Act Claims*

The Forest Service is required to take a “hard look” at the environmental consequences of its actions. *Marsh*, 490 U.S. at 374. This includes considering all foreseeable direct and indirect impacts. *City of Davis*, 521 F.2d at 676. Further, NEPA requires that an environmental analysis for a single project consider the cumulative impacts of that project together with all past, present and reasonably foreseeable future actions. *See* 40 C.F.R. §§ 1508.7, 1508.27(b)(7); *Hall v. Norton*, 266 F.3d 969, 978 (9th Cir. 2001). Cumulative impacts include impacts that “can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7.

Ordinarily, an agency has the discretion to determine the physical scope used for measuring environmental impacts. *See, e.g., Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976). However, the choice of analysis scale must represent a reasoned decision and cannot be arbitrary. *Pac. Coast Fed’n of Fishermen’s Ass’ns, Inc. v. Nat’l Marine Fisheries Serv.*, 265 F.3d 1028, 1037-38 (9th Cir. 2001) (agency acted arbitrarily and capriciously by ignoring its own expert advice where no contrary recommendations existed in the record); *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (agency action is arbitrary and capricious if it “entirely failed to consider an important aspect of the problem”).

The 1996 Monitoring Report concluded that with respect to the lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, and white-headed woodpecker, “Forest Plan direction is inadequate to provide for habitat needs, because the habitat

needs of these species *must be addressed at a landscape scale.*” (emphasis added). The Long Prong EIS found that there would be significant depletion of boreal owl habitat and some depletion of habitat for the flammulated owl, northern goshawk, fisher, and wolverine. To determine the impact on these species, the Forest Service used the “home range” of each species as a measurement of the cumulative effects area. While we have not found a precise definition of “landscape scale,” all parties agree that it represents a larger analysis area than “home range.”

In the face of its own findings that there would be significant depletion of habitat, the Forest Service arbitrarily chose “home range” as the scale of analysis for cumulative effects for the Long Prong Sale. The Forest Service ignored the detailed and well supported conclusions of its own scientists that cumulative effects analysis of the species at issue “*must be addressed at a landscape scale.*” (emphasis added). The Long Prong EIS does not explain why the home range scale was chosen despite hard scientific information in the possession of the Forest Service indicating that use of landscape scale analysis is mandatory.

We hold, therefore, that the Forest Service acted arbitrarily in employing the home range for cumulative effects analysis in the Long Prong EIS with respect to the lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, and white-headed woodpecker without justifying its decision in the face of contrary evidence. The Forest Service must prepare a new or supplemental EIS containing a reasoned discussion of its choice of cumulative effects area taking due account of the conclusions of the 1996 Monitoring Report.

As to the Lightning Ridge EA, we hold that the cumulative effects analysis for the lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, and white-headed woodpecker was adequate to satisfy NEPA. The analysis method selected by the Forest Service for NEPA compliance found no adverse

effects on these species within the project area. Therefore, there was no reason for the Forest Service to expand the scope of its NEPA cumulative effects analysis to landscape scale. The Forest Service's choice of home range as the physical scope for cumulative effects analysis was not arbitrary or capricious.

As to the Conservation Groups' remaining NEPA claims, we conclude that the Forest Service took the requisite hard look at the remaining issues. While the actions contemplated violate the substantive requirements of the Forest Act, NEPA does not impose substantive requirements but only requires that the agency consider the consequences of its actions before going forward. Therefore an action may violate the Forest Act while at the same time complying with NEPA.

IV. Remedy

The Conservation Groups seek a forest-wide injunction of all logging. Such a sweeping remedy is not warranted. At such time as the Forest Service seeks to approve future logging projects it must demonstrate compliance with the Forest Act and NEPA for those sales. If the Forest Plan is not revised or amended prior to reconsideration of the Long Prong and Lightning Ridge sales or other future timber sales, or at the very minimum supplemented by forest-wide interim standards, the same infirmities present here will very likely crop up again with respect to the Forest Act. However, we prefer to consider such issues in the context of site specific actions, if and when they actually arise.

As to the Long Prong and Lightning Ridge timber sales, “[b]ecause we ask only that the Forest Service conduct the type of analysis that it is required to conduct by law, an analysis it should have done in the first instance, it is difficult to ascertain how the Forest Service can suffer prejudice by having to do so now.” *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1382 (9th Cir. 1998). Fur-

ther, the Conservation Groups have demonstrated irreparable harm here because “[t]he old growth forests [they seek] to protect would, if cut, take hundreds of years to reproduce.” *Id.* (quoting *Portland Audubon Soc’y v. Lujan*, 884 F.2d 1233, 1241 (9th Cir. 1989)).

We therefore remand to the district court with instructions to enjoin the Lightning Ridge and Long Prong timber sales until such time as the Forest Service complies with the Forest Act and NEPA.

V. Conclusion

We hold that claim preclusion does not bar the Conservation Group’s claims on appeal and that administrative exhaustion bars the Conservation Group’s claim with respect to disclosure of habitat conservation plans but does not bar the claim with respect to failure to conduct population surveys or monitoring of management indicator species.

With respect to the Forest Act claims, we hold that the Forest Plan standard for maintaining the viability of old growth dependent species is invalid, and, even if the standard were valid, the Forest Service failed to comply with the standard. We hold that on the facts presented here, the Forest Service may not use evaluation of habitat alone as a proxy for population monitoring of management indicator species.

With respect to the NEPA claims, we hold that the Long Prong EIS was inadequate because it failed to justify its choice of scale for the cumulative effects analysis for the lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, and white-headed woodpecker. We hold that the Lightning Ridge EA was adequate.

We therefore affirm in part, reverse in part, and remand to the district court with instructions to enter judgment consis-

tent with this opinion and to enjoin the Lightning Ridge and Long Prong timber sales.

Each side shall bear its own costs.

AFFIRMED IN PART, REVERSED IN PART, AND REMANDED.

THOMPSON, Circuit Judge, Dissenting in Part:

Because the Lightning Ridge timber sale does not violate the National Forest Management Act (NFMA), 16 U.S.C. §§ 1600-1687 (2000), I respectfully dissent from the majority's discussion of the Lightning Ridge sale under NFMA and its judgment blocking that sale. I join in the remainder of the opinion and judgment.

As the majority opinion explains, wildlife habitat in the Boise National Forest must be “managed to maintain viable populations of existing native and desired non-native vertebrate species” 36 C.F.R. § 219.19 (2000); *see also* 16 U.S.C. § 1604. The Forest Service's 1996 Monitoring Report for the Boise National Forest found that this requirement was not being met for certain old growth species, namely the pileated woodpecker, lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, and white-headed woodpecker.

But in preparing its Environmental Assessment for Lightning Ridge, the Forest Service found, and the plaintiffs failed to contradict, that timber harvesting in Lightning Ridge will not deplete the habitat of the pileated woodpecker, lynx, wolverine, fisher, boreal owl, goshawk, flammulated owl, or white-headed woodpecker. Habitat for many of these species does not exist in the project area, and for the few of these species for which habitat does exist, the project will actually improve that habitat. In other words, allowing the Lightning

Ridge timber sale to go forward will not threaten or diminish the viability of these species.

In comparison, the Long Prong sale does diminish the viability of these species, at least in the site area. In that sale, there would be depletions of pileated woodpecker, boreal owl, flammulated owl, northern goshawk, fisher, and wolverine habitat. Given this fact, a danger exists that if these habitats are depleted prior to the adoption of a species viability plan that complies with NFMA, the depletions might later be found to have significantly affected viability.

In sum, because the Long Prong sale threatens the viability of certain of the species at issue in this litigation, it violates NFMA; the Lightning Ridge sale does not pose such a threat and, consequently, does not violate NFMA. I would affirm the district court's judgment allowing the Lightning Ridge sale to go forward.