

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ARIZONA CATTLE GROWERS'
ASSOCIATION,

Plaintiff-Appellant,

v.

KEN SALAZAR, in his official
capacity as Secretary of the
Interior; H. DALE HALL, in his
official capacity as Director of
Fish & Wildlife Service; UNITED
STATES DEPARTMENT OF THE
INTERIOR; PAUL K. CHARLTON; ERIC
H. HOLDER JR., Attorney General,
Defendants-Appellees,

CENTER FOR BIOLOGICAL DIVERSITY,
Defendant-intervenor-Appellee.

No. 08-15810

D.C. No.
2:06-CV-01744-
SRB
OPINION

Appeal from the United States District Court
for the District of Arizona
Susan R. Bolton, District Judge, Presiding

Argued and Submitted
November 4, 2009—San Francisco, California

Filed June 4, 2010

Before: Betty B. Fletcher, William C. Canby, Jr., and
Susan P. Graber, Circuit Judges.

Opinion by Judge B. Fletcher

COUNSEL

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Andrew C. Mergen, Rebecca Riley, & Robert H. Oakley, U.S. Department of Justice, Environment and Natural Resources Division, Washington, D.C., for the defendant-appellee, U.S. Fish and Wildlife Service.

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Marc D. Fink, Center for Biological Diversity, Duluth, Minnesota, and Matt Kenna, Western Environmental Law Center, Durango, Colorado, for defendant-intervenor-appellee Center for Biological Diversity.

OPINION

B. FLETCHER, Circuit Judge:

Arizona Cattle Growers' Association ("Arizona Cattle") appeals from the district court's grant of summary judgment rejecting its challenge to the United States Fish and Wildlife Service's ("FWS") designation of critical habitat for the Mexican Spotted Owl. Arizona Cattle argues that the FWS unlawfully designated areas containing no owls as "occupied" habitat and that the FWS calculated the economic impacts of the designation by applying an impermissible "baseline" approach. We have jurisdiction under 28 U.S.C. § 1291, and we affirm.

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I. BACKGROUND

A. Litigation History

In 1993 the Mexican Spotted Owl was listed as a threatened species under the Endangered Species Act (“ESA”). The listing decision prompted a series of lawsuits alternately seeking to compel the FWS to designate critical habitat for the owl and, following the FWS’s designation of habitat, attacking that designation.

The first such lawsuit was in 1995 to compel the FWS to designate critical habitat and resulted in the FWS’s issuing a final rule designating 4.6 million acres of critical owl habitat, a designation that was quickly challenged in court and then revoked in 1998. After another lawsuit was filed to compel the FWS to designate habitat, the FWS proposed a rule in 2000 to designate 13.5 million acres of critical habitat and in 2001 the agency promulgated a final rule that again designated 4.6 million acres. That rule was later struck down and, rather than propose a new rule, the FWS reopened the comment period on the rule it proposed in 2000. In 2004 the FWS designated approximately 8.6 million acres of critical habitat. It is this designation, the 2004 Final Rule, that Arizona Cattle challenges in the current action.

Arizona Cattle moved for summary judgment to set aside the 2004 Final Rule as invalid on several grounds, only two of which are appealed. First, Arizona Cattle argues that the FWS impermissibly treated areas in which no owls are found as “occupied” under the ESA and, in doing so, bypassed the statutory requirements for designating unoccupied areas. Second, Arizona Cattle challenges the FWS’s determination of the economic impacts of the designation, arguing primarily that the FWS applied an impermissible “baseline” approach that did not account for economic impacts of the critical habitat designation that are also attributable to the listing decision.

The district court rejected Arizona Cattle's arguments and granted the Appellees' cross-motions for summary judgment.

B. The 2004 Final Rule

The FWS relied on three types of habitat management areas, first outlined in a Recovery Plan created in 1995, as a starting point for the 2004 Final Rule: protected areas, restricted areas, and other forest and woodland types. Protected areas are those areas containing known owl sites, termed Protected Activity Centers ("PACs"); "steep slope" areas meeting certain forest conditions; and legally and administratively reserved lands. "PACs include a minimum of 600 acres . . . that includes the best nesting and roosting (*i.e.*, resting) habitat in the area . . . and the most proximal and highly used foraging areas." However, PACs contain only 75% of necessary foraging areas for the owl. Restricted areas include non-steep slope areas with appropriate forest conditions that are "adjacent to or outside of protected areas." "Areas outside of PACs, including restricted areas, provide additional habitat appropriate for foraging." According to the 2004 Final Rule, restricted areas "also provide habitat for nonterritorial birds[,] . . . support dispersing juveniles, and . . . provide replacement nest/roost habitat on the landscape through time."

The FWS used these categories to "develop[] alternatives for critical habitat designation," selecting protected and restricted areas as a starting point for potential owl critical habitat.¹ In the 2004 Final Rule the FWS adopted an alternative that excluded all tribal lands from designation, refined critical habitat unit boundaries, and excluded certain areas that did not contain PACs. The FWS also excluded "Wildland-Urban Interface" areas identified as being at high risk of catastrophic

¹As discussed in greater detail below, the FWS also analyzed the areas meeting these habitat characteristics for evidence of owl presence and used this information to refine its eventual designation.

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wildfire. The 2004 Final Rule concluded that all of the designated habitat was occupied by the owl.

II. STANDARD OF REVIEW

We review the grant of summary judgment *de novo*, reviewing directly the agency's action under the Administrative Procedure Act's arbitrary and capricious standard. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1065 (9th Cir. 2004).

[A]n agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). In recognition of the agency's technical expertise the court usually defers to the agency's analysis, particularly within its area of competence. See *Earth Island Inst. v. Hogarth*, 494 F.3d 757, 766 (9th Cir. 2007); *Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 843-44 (9th Cir. 2003). However, the court need not defer to the agency when the agency's decision is without substantial basis in fact, and there must be a rational connection between the facts found and the determinations made. *Earth Island*, 494 F.3d at 766.

III. THE FWS PROPERLY DESIGNATED ONLY OCCUPIED AREAS AS CRITICAL HABITAT

We first consider whether the owl "occupied" the designated areas, as defined by the ESA. We conclude that the FWS permissibly interpreted the word "occupied" in the ESA

to include areas where the owl was likely to be present and that, applying this definition, the FWS designated only “occupied” areas.

A. The ESA and the Definition of “Occupied”

[1] The ESA defines a species’ critical habitat as

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

(ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.

16 U.S.C. § 1532(5)(A). The statute thus differentiates between “occupied” and “unoccupied” areas, imposing a more onerous procedure on the designation of unoccupied areas by requiring the Secretary to make a showing that unoccupied areas are essential for the conservation of the species. Although this appeal turns primarily on the factual question of whether the FWS treated unoccupied areas as occupied to avoid this more onerous process, we face the preliminary issue of what it means for an area to be “occupied” under the ESA.

[2] It is useful to unpack this inquiry into two components: uncertainty and frequency. Uncertainty is a factor when the FWS has reason to believe that owls are present in a given area, but lacks conclusive proof of their presence. Frequency is a factor when owls are shown to have only an intermittent presence in a given area. Occasionally, both factors will play

a part in determining whether an area is “occupied.” Because the ESA permits only one of two possible outcomes for this inquiry—occupied or unoccupied—when the result is best characterized by a spectrum, we must determine the scope of the FWS’s authority to categorize as “occupied” those areas that may not fit neatly into either pigeonhole.

We have ample guidance on the “uncertainty” issue. The ESA provides that the agency must determine critical habitat using the “best scientific data available.” 16 U.S.C. § 1533(b)(2); *see also id.* § 1533(b)(6)(C)(ii). This standard does not require that the FWS act only when it can justify its decision with absolute confidence. *See, e.g., Pub. Citizen Health Research Group v. U.S. DOL*, 557 F.3d 165, 176 (3d Cir. 2009); *Greenpeace Action v. Franklin*, 982 F.2d 1342, 1354-55 (9th Cir. 1992). Although the FWS cannot act on pure speculation or contrary to the evidence, the ESA accepts agency decisions in the face of uncertainty. *Compare Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1244 (9th Cir. 2001), *with Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60-61 (D.C. Cir. 2000).

Turning to the “frequency” component, Arizona Cattle asserts that the word “occupied” is unambiguous and must be interpreted narrowly to mean areas that the species “resides in.” In the context of the owl, they argue that such areas consist only of the 600-acre PACs. The FWS argues for a broader interpretation. It suggests that where a geographic area is used with such frequency that the owl is likely to be present, the agency may permissibly designate it as occupied. FWS contends that, at a minimum, this includes the owl’s “home range”² and may include other areas used for intermittent activities.

²Home range is the “area used by an animal during its normal activities”; in the case of the owl, estimates of the owl’s home range size have varied substantially. Studies cited in the 1995 Recovery Plan, for example, estimated home range sizes varying from a low of 645 acres to a high of 3,831 acres.

[3] We cannot agree that “occupied” has an unambiguous, plain meaning as Arizona Cattle suggests. The word “occupied,” standing alone, does not provide a clear standard for how frequently a species must use an area before the agency can designate it as critical habitat. *Cf. Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 548 n.14 (1987) (explaining that there is “clearly” no plain meaning to the phrase “public lands which are actually occupied”). Merely replacing the word “occupied” with the word “resides” does not resolve this ambiguity. Rather, Arizona Cattle’s argument that “occupied” is limited to areas where the species “resides” only underscores the flexibility of determining whether an area is “occupied.” Viewed narrowly, an owl resides only in its nest; viewed more broadly, an owl resides in a PAC; and viewed more broadly still, an owl resides in its territory or home range. Determining whether a species uses an area with sufficient regularity that it is “occupied” is a highly contextual and fact-dependent inquiry. *Cf. Cape Hatteras Access Pres. Alliance v. United States DOI*, 344 F. Supp. 2d 108, 119-20 (D.D.C. 2004). Relevant factors may include how often the area is used, how the species uses the area, the necessity of the area for the species’ conservation, species characteristics such as degree of mobility or migration, and any other factors that may bear on the inquiry. Such factual questions are within the purview of the agency’s unique expertise and are entitled to the standard deference afforded such agency determinations. *See Earth Island*, 494 F.3d at 766.

[4] Having found the term “occupied” dependent on a number of factors, we must look to whether the agency’s proposed interpretation is permissible as applied to the owl’s habits and habitat. Arizona Cattle argues that the FWS has never previously defined “occupied critical habitat.” Thus, it contends, the agency interpretation urged on appeal is merely a self-serving construction found only in the FWS’s legal briefs and is entitled to no deference. But the agency has defined “occupied critical habitat” in a manner very similar to the proposed interpretation. In its Endangered Species Con-

sultation Handbook, the agency defines “occupied critical habitat” as

critical habitat that contains individuals of the species at the time of the [Section 7] project analysis. A species does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (e.g. migratory birds). Subsequent events affecting the species may result in this habitat becoming unoccupied.

U.S. Fish & Wildlife Serv. & Nat’l Marine Fisheries Serv., *Endangered Species Consultation Handbook* 4-34 (1998), available at <http://www.fws.gov/endangered/pdfs/Sec7/handbook/ch4.pdf>. This definition recognizes that a species need not be present continuously for habitat to be considered “occupied.” It also demonstrates that “occupied” habitat is not limited to areas in which the species “resides,” as it includes habitat that merely “contains individuals of the species.” At the very least, this definition is entitled to deference “proportional to its power to persuade” pursuant to the Supreme Court’s holding in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944), and subsequent cases. See *United States v. Mead Corp.*, 533 U.S. 218, 235 (2001) (giving *Skidmore* deference to interpretations contained in agency manuals or enforcement guidelines); *Bamonte v. City of Mesa*, 598 F.3d 1217, 1228 (9th Cir. 2010) (explaining that, under *Skidmore*, agency positions not afforded the force of law are entitled to deference “proportional to [their] power to persuade” (internal quotation marks omitted)). The definition in the handbook appears to be the result of the agency’s considered judgment and, for the reasons we express below, we are persuaded by the agency’s position that “occupied” should not be interpreted in a restrictive fashion.

[5] The FWS permissibly rejected Arizona Cattle’s “resides in” interpretation as too narrow. Looking to the context of the present appeal provides a solid justification for this

rejection. The record demonstrates, for example, that PACs include only 75% of the owl's foraging habitat. Even if we assume that each owl "resides in" a PAC, we are not persuaded that Congress intended a definition of "occupied" that would exclude areas likely to be regularly used by the species. This is particularly true where those areas contain resources necessary for species conservation. Arizona Cattle's proposed interpretation would also exclude habitat for nonterritorial owls that may not be under constant or uniform use despite frequent owl presence. *Cf. Cape Hatteras Access Pres. Alliance*, 344 F. Supp. 2d at 119-20 (noting the agency's examination of areas for "consistent use").

[6] The FWS has authority to designate as "occupied" areas that the owl uses with sufficient regularity that it is likely to be present during any reasonable span of time. This interpretation is sensible when considered in light of the many factors that may be relevant to the factual determination of occupancy. For example, Arizona Cattle's "reside in" interpretation would make little sense as applied to nonterritorial, mobile, or migratory animals—including the owl—for which it may be impossible to fix a determinate area in which the animal "resides."³ Such a narrow interpretation also would mesh poorly with the FWS's authority to act in the face of uncertainty.⁴

[7] We are further persuaded by our decision in *Gifford*

³It is easy to envision other contexts in which this interpretation is even less helpful: consider salmon that swim upstream to spawn, periodical cicadas that live underground for years before emerging as adults, migratory birds, or other animals that require a diverse array of habitats.

⁴By way of example, because PACs represent only known owl sites, Arizona Cattle's proposed interpretation that only PACs are "occupied" because they reflect where the owl "resides" is likely substantially underinclusive and places a burden on the agency to count every owl. *See Sw. Ctr. for Biological Diversity*, 215 F.3d at 60-61 (explaining that the ESA's requirement to use the best scientific data available did not require the agency to conduct independent studies to count every single animal).

Pinchot. In that case we invalidated an agency interpretation of the ESA that effectively eliminated the independent significance of critical habitat as a measure to protect endangered species. See *Gifford Pinchot*, 378 F.3d at 1070; see also *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 441-43 (5th Cir. 2001). The same logic leads us here to reject Arizona Cattle’s attempt to shackle the FWS with an overly narrow definition of “occupied.” Critical habitat—including “occupied critical habitat”—is defined in relation to areas necessary for the *conservation* of the species, not merely to ensure its survival. See 16 U.S.C. § 1532(5)(A); *Gifford Pinchot*, 378 F.3d at 1070; *Sierra Club*, 245 F.3d at 441-42. Limiting the agency to designating habitat only where the owl “resides” focuses too narrowly on owl survival and ignores the broader purpose of the critical habitat designation.

Our decision is also informed by Supreme Court precedent that has treated the word “occupied” with considerable breadth. In *Amoco Production Co.*, the Court distinguished a statute referring to land “in Alaska” from a statute referring to “public lands which are actually occupied.” 480 U.S. at 547-48 n.14. The Court explained that while “in Alaska” had a “precise geographical/political meaning[],” the phrase “public lands which are actually occupied” did not and was properly construed to include substantial areas of adjacent waters. *Id.* (citing *Hynes v. Grimes Packing Co.*, 337 U.S. 86, 110-16 (1949)). The Court’s interpretation of “actually occupied” as including adjacent waters suggests that it is permissible for the FWS to interpret “occupied” more broadly than merely the area where an individual or species “resides.”

Finally, this interpretation is supported by the purpose of the ESA “ ‘to prevent animal and plant species endangerment and extinction caused by man’s influence on ecosystems, and to return the species to the point where they are viable components of their ecosystems.’ ” *Trout Unlimited v. Lohn*, 559 F.3d 946, 949 (9th Cir. 2009) (quoting H.R. Rep. No. 95-

1625, at 5 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453, 9455).⁵ Where data are inconclusive or where habitat is used on a sporadic basis, allowing the FWS to designate as “occupied” habitat where the species is likely to be found promotes the ESA’s conservation goals and comports with the ESA’s policy of “institutionalized caution.” *See* 16 U.S.C. § 1531; *cf.*, *e.g.*, *Defenders of Wildlife v. Flowers*, 414 F.3d 1066, 1074 (9th Cir. 2005); *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987) (“Congress clearly intended that [agencies] give the highest of priorities and the benefit of the doubt to preserving endangered species.” (internal quotation marks omitted)).

It is possible for the FWS to go too far. Most obvious is that the agency may not determine that areas unused by owls are occupied merely because those areas are suitable for future occupancy. Such a position would ignore the ESA’s distinction between occupied and unoccupied areas. *See Ariz. Cattle Growers’ Ass’n*, 273 F.3d at 1244. We note as a caveat, however, that determining whether an area is occupied or merely will be occupied in the future may be complicated in the context of migratory or mobile species. The fact that a member of the species is not present in an area at a given instant does not mean the area is suitable only for future occupancy if the species regularly uses the area.⁶

⁵Arizona Cattle cites to the legislative history surrounding the enactment of the statutory definition of “critical habitat.” Although this history suggests that Congress was concerned that agencies were giving equal status to “lands needed for population expansion” as to those presently occupied by the species and that Congress intended the agency to be circumspect about designating unoccupied areas, the history sheds little light on what frequency of species use renders an area “occupied,” the issue of substance in this case. *See* S. Rep. No. 95-874, at 10 (1978).

⁶Consider, for instance, habitat that a currently living owl has migrated through—and used—in the recent past, and through which owls are likely to migrate and use similarly in the future. While owl presence in this area at a particular time may be limited, we are disinclined to hold that the FWS must find this area “unoccupied” simply because, despite owl use in the recent past and foreseeable future, no owl is using the area during a particular temporal window.

Having thus framed the inquiry, we turn to the primary issue before the court: whether the FWS included unoccupied areas in its critical habitat designation.

B. The FWS Did Not Designate Unoccupied Areas as Critical Habitat

[8] After a thorough review of the record we find that the FWS did not arbitrarily and capriciously treat unoccupied areas as occupied. We reiterate that when an agency is acting within its expertise to make a scientific determination “a reviewing court must generally be at its most deferential.” *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983); *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc), *abrogated in part on other grounds by Winter v. NRDC*, 129 S. Ct. 365 (2008).

[9] The FWS took, as a starting point for its 2004 designation, the three types of habitat management areas that it developed in the 1995 Recovery Plan. Simply by virtue of the definitions of these habitat management types, there is a direct link between the designated territory and owl occupancy. PACs are explicitly defined with reference to frequent owl presence, and non-PAC protected areas and restricted areas are “devised around” and “adjacent to” PACs. More to the point, we note significant record support for owl occupancy of these areas in the form of studies correlating the habitat characteristics of protected and restricted areas with owl presence. *Cf. Gifford Pinchot*, 378 F.3d at 1066; *cf also Env'tl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 451 F.3d 1005, 1017 (9th Cir. 2006) (rather than counting individual animals, an agency may in appropriate cases use habitat as a proxy).

[10] The agency did not stop there. It further refined its designation by adding and removing areas on the basis of evidence of owl occupancy or lack thereof. A striking example of this is the FWS’s analysis of owl occupancy in the pro-

posed critical habitat in Arizona.⁷ This analysis proceeds, unit by unit, through the addition of areas to the critical habitat proposal on the basis of information about known owl locations. It also demonstrates that the FWS, even where it could not identify known owl sites (PACs) with certainty, was considering other evidence of current owl use in designating habitat, such as “owl calling routes.”

A point of recurring significance to our analysis is that PACs reflect only *known* owl sites. Although the 2004 Final Rule identified 1,176 PACs, owl populations have been estimated to be significantly greater than the maximum 2,352 owls reflected by this number of PACs. For example, the 2004 Environmental Analysis notes that more owls than this may exist in a single recovery unit: “a pilot study (Ganey *et al.*, 2000) conducted in 1999 estimated the number of Mexican spotted owls for the Upper Gila Mountains Recovery Unit, exclusive of tribal lands, as 2,950.” Since the listing of the species, the FWS has repeatedly revised upward its estimates of owl populations and identified new PACs. Likewise, the 2004 Final Rule recognizes that “[a]dditional surveys are likely to document more owls.” Efforts by the FWS to identify other evidence of owl presence when it is unable to fix the location of a PAC with certainty are, therefore, highly significant.

Even more significant is the fact that the FWS excluded areas with evidence of few or no owls. The 2004 Final Rule explains that the FWS “did not designate some areas that are known to have widely scattered owl sites, low owl population densities, and/or marginal habitat quality.” We find this statement supported by record evidence explaining the FWS’s decision to exclude several areas due to an absence of owls. We likewise find that the record demonstrates that where the FWS did include areas in which owl presence was uncertain

⁷This document is particularly significant because Arizona contains the largest areas of designated critical habitat.

—such as the North Kaibab Ranger District (“NKRDR”), the Peloncillo Mountains, the Prescott National Forest, and certain “sky islands”—it did so after thoughtful consideration of owl occupancy. Finally, we note that a comparison of the areas designated in the 2004 Final Rule to PAC locations confirms that the FWS excluded the vast majority of critical habitat units that contained no PACs and refined the boundaries of the critical habitat units to exclude large areas that are distant from PACs.

[11] The FWS’s process for designating critical habitat gives us a strong foundation for our conclusion that the agency did not arbitrarily and capriciously treat areas in which owls are not found as “occupied.” With this context in mind, we turn to Arizona Cattle’s specific arguments that the agency improperly designated unoccupied areas as critical habitat and our reasons for disagreement.

1. The FWS Did Not Impermissibly Change Course in the 2004 Final Rule from Its Approach to Prior Designations

Arizona Cattle argues that the 1995 Recovery Plan and the agency’s prior proposed habitat designations demonstrate that the FWS considered only PACs to be occupied and intended non-PAC areas—specifically restricted habitat—to provide future owl habitat. This, it contends, is proof that the 2004 Final Rule must have falsely labeled restricted areas as “occupied.” Arizona Cattle singles out an e-mail that it contends is a smoking gun demonstrating that the FWS made an abrupt shift in its description of protected and restricted areas, deciding to refer to these areas as “suitable habitat outside of PACs” rather than “unoccupied habitat.”

We have already suggested some of the reasons why it would be inappropriate to read the 2004 Final Rule as treating PACs as the only areas occupied by the owl. We pause here to explain this conclusion further. First, the 2004 Final Rule

is explicit that PACs represent only the *best* habitat used by the owl. The record also demonstrates that the FWS believed that owls may use habitat within a one-mile buffer around PACs and that PACs were intended to “minimize activities occurring in close proximity to owl nests . . . and preserve the best habitat close to known nesting and roosting sites.” As already discussed, the record reflects that known, territorial owls regularly use substantial areas outside of their PACs for foraging. For these owls, we find that the agency’s suggestion that the owl’s home range is an appropriate measure of the territory occupied by the owl is well-supported by the record.

Even that measure would not present a complete picture of the territory occupied by the owl because PACs reflect only *known* owl sites. It is implausible to believe the FWS intended—or was statutorily required—to limit “occupied” habitat to PACs, or to the home range of only known owls, when such a decision would be significantly underinclusive. Similarly, it is clear that PACs and the owl’s home range do not reflect areas used by nonterritorial owls or areas used for certain other intermittent owl activities, such as dispersal or migration. The agency points out in the 2004 Final Rule, for example, evidence that “some [owls] migrate considerable distances 12-31 miles . . . during the winter.”⁸ It does not appear that the FWS intended to limit “occupied” habitat to PACs, nor was this decision arbitrary and capricious.

[12] As to the FWS’s purported shift in approach between the 2004 Final Rule and earlier agency actions, we find that it reflects merely a change in the agency’s perspective, a movement away from an unnecessarily restrictive view of the areas the owl “occupies.” In other words, the apparent difference between the 2004 Final Rule and the agency’s prior

⁸The 2004 Final Rule also notes that “some [owls] remain in the general area but exhibited shifts in habitat use patterns.” Such shifts in habitat use could also explain some of the statements in the previous rule that discuss replacement of nesting and roosting habitat over time.

approach did not arise because the agency suddenly decided to treat substantial areas where owls were not present as “occupied.” The agency simply reassessed its previous approach, which focused narrowly on “known nesting sites” as the areas occupied by the owl, adopting the broader approach that we have held reflects the proper definition of “occupied.” See *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 658-59 (2007) (explaining that agencies may change their minds if proper procedures are followed and federal courts ordinarily review only an agency’s final action); *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 44; *PLMRS Narrowband Corp. v. FCC*, 182 F.3d 995, 1001-02 (D.C. Cir. 1999). Because we conclude that the 2004 Final Rule remained within permissible bounds, we find no fault in the rule on this front.

The e-mail that Arizona Cattle contends demonstrates the FWS’s shift in approach is explicit that this change was one of agency perspective and was entirely consistent with the evidence of the areas used by the owl. The e-mail states that, in its previous discussion of “occupied habitat,” the agency was “really referring to . . . known nesting sites” and that “non-PAC protected areas, restricted areas, and other forest and woodland types within one mile of a PAC . . . may be used by owls at any given time.” It explains that, although a narrow definition of “occupied habitat” that focused exclusively on nesting might not include these areas, non-PAC protected areas and restricted areas “may potentially harbor an owl at any given time.” The same e-mail states that the FWS believed these areas were, in fact, presently used by owls—even if they had been previously labeled “unoccupied” under an unnecessarily restrictive approach to that term. Thus, statements in prior agency actions as to the suitability of certain areas for “future owl occupancy” or characterizing restricted areas as “unoccupied” lose their force because they reflect this change in approach rather than a contradiction as to owl presence or use of these areas. We will “uphold a decision of less than ideal clarity if the agency’s path may be reasonably

discerned.” *Nat’l Ass’n of Home Builders*, 551 U.S. at 658 (internal quotation marks omitted); *see also Wetlands Action Network v. U.S. Army Corps of Eng’rs*, 222 F.3d 1105, 1122 n.8 (9th Cir. 2000).

We find the e-mail’s explanation for the agency’s change in perspective supported by the record. For example, the record contains notes taken at a meeting that demonstrate the FWS’s focus on assuring that the agency could identify a “reasonable expectation” of occupancy in the areas it planned to designate. The record likewise demonstrates the agency’s view that restricted areas are “temporally occupied” even if not used full-time for nesting purposes. As we have already explained, there is sufficient record support for the agency’s decision in the 2004 Final Rule not to treat PACs as the only areas occupied by the owl. Another example is an e-mail in which the agency explains that, although the exclusion of certain land resulted in the FWS’s proposing to designate an area that contained no PACs, the agency considered the restricted area occupied.

The FWS was not attempting to designate areas devoid of owls as “occupied” in the 2004 Final Rule. Although seeming inconsistencies between the FWS’s decisions may shed light on the agency’s process, and changes from past positions that are unsupported by evidence are unlawful, ultimately it is the 2004 Final Rule that is before the court and our inquiry is whether the FWS exceeded its authority or deviated from the evidence.⁹ *See Nat’l Ass’n of Home Builders*, 551 U.S. at 658-

⁹Arizona Cattle does point to a few statements in the record questioning owl presence in areas proposed for designation in what eventually became the 1995 Final Rule. These statements are dated and their applicability to the 2004 Final Rule is questionable. The record reflects evolving agency knowledge as to owl population and location in the decade between the listing of the owl and the 2004 Final Rule, a point that is explicit in the 1995 Recovery Plan and that Arizona Cattle acknowledges in its reply brief. These isolated statements of disagreement with the FWS’s approach in a prior rule promulgated in the mid-1990s do not overcome the record support for the agency’s decision in 2004.

59; *Wetlands Action*, 222 F.3d at 1122 n.8. The FWS's analysis solidly demonstrates the connection between the designated areas and owl occupancy, notwithstanding that the agency previously adopted an unnecessarily restrictive view of the areas the owl occupied as limited to known nesting sites. The agency's approach in the 2004 Final Rule was supported by the evidence and within permissible bounds.

2. The Amount of Land Designated Is Not Disproportionate to the Number of Owls

[13] Arizona Cattle also argues that even using the owl's substantially larger home range as the appropriate measure for the territory occupied by the owl, the FWS has designated a grossly disproportionate amount of land compared to the amount the owl occupies. It ties this argument to a seemingly simple calculation: multiplying the 1,176 PACs by the maximum estimated home range size of the owl of 3,831 acres, the resultant area is only approximately 4.5 million acres, in contrast to the 8.6 million acres designated. This calculation, however, rests on a faulty assumption that the PACs represent all extant owls. We have already explained that PACs reflect only *known* owl sites and that there is record support for the existence of substantially greater numbers of owls and undiscovered sites. Nor does this calculation, tied as it is to the number of PACs, reflect areas used by nonterritorial owls, areas used for juvenile dispersal, or areas used for owl migration.¹⁰ Arizona Cattle's argument does not overcome the

¹⁰We note again here the complexity of determining whether an area is occupied in the context of a mobile species. Areas used for juvenile dispersal, for example, may be necessary for owl survival but only used for portions of the year. The record reflects that juvenile dispersal involves the connection of owl groups into "metapopulations." It does not mean that habitat used for dispersal is not used by owls, but is rather under intermittent use for routine owl movement from one area to another. Regardless, we do not rest our holding on this point because, even absent this rationale, the FWS has sufficiently justified the designation.

strong evidence that the FWS was focused on designating areas occupied by owls.

3. The FWS's Decision to Include the North Kaibab Ranger District in the Designation Was Not Arbitrary and Capricious

Finally, we turn to the single specific location¹¹ where Arizona Cattle contends that the FWS has failed to demonstrate owl occupancy: the NKRD. Citing a letter to the FWS detailing certain studies conducted in the area without owl sightings, Arizona Cattle maintains that the agency treated the NKRD as occupied despite evidence that owls were in fact absent from the District. Arizona Cattle, however, overlooks a responsive memorandum by the agency in which the FWS explains that it declined to rely on those studies because it concluded that the studies were not reliable evidence that owls were not present. This memorandum also explains the reasons for the agency's conclusion that owls are present, including a history of owl sightings in the NKRD. This is precisely the sort of decision within the agency's technical expertise that we are not free to second-guess. This memorandum, along with the FWS's diligent review of the proposed designation for owl occupancy, detailed above, persuades us that the FWS's decision had a sound basis in fact.

[14] We conclude that the agency designated only "occupied" areas as critical habitat, even though it may not have identified with certainty in all cases a known owl constantly inhabiting that territory. The process that the FWS used to select habitat for designation, the measures it took to exclude

¹¹Although Arizona Cattle points to areas where it contends that the amount of land designated is disproportionate to the number of PACs contained in the area, this argument is simply a variant on Arizona Cattle's mathematical argument we reject above. In addition, even as to known owls the argument relies on the 600-acre PACs, rather than a more accurate measure of occupied area.

areas where owls were absent or use by owls was infrequent, and its careful work to confirm the presence of owls in the designated areas demonstrate that the FWS designated areas that correspond to habitat where the owl is likely to be found. The agency action was neither based on speculation nor counter to the evidence.

IV. THE FWS'S ECONOMIC ANALYSIS WAS NOT ARBITRARY AND CAPRICIOUS

Arizona Cattle challenges the FWS's analysis of the economic impacts of the critical habitat designation. For the reasons expressed below, we find no fault with the agency's economic analysis.

A. The FWS Permissibly Used the Baseline Approach in Conducting the Economic Analysis

The decision to list a species as endangered or threatened is made without reference to the economic effects of that decision. *See N.M. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1282 (10th Cir. 2001). Listing alone results in certain protections for the species, including a requirement that federal agencies “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species.” 16 U.S.C. § 1536(a)(2); *see also, e.g., id.* § 1538. These protections may impose economic burdens.

[15] In contrast to the listing decision, under the ESA the agency may designate critical habitat only after considering the economic impact of the designation on any particular area. *Id.* § 1533(b)(2). The agency has discretion to exclude any area from the designation if the agency determines “that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat,” unless exclusion would result in extinction of the species. *Id.* This can be a del-

icate balancing act. After critical habitat is designated, the ESA requires that federal agencies “insure that any action authorized, funded, or carried out by such agency . . . is not likely to . . . result in the destruction or adverse modification” of critical habitat. *Id.* § 1536(a)(2); *see also Gifford Pinchot*, 378 F.3d at 1069.

[16] The crux of the parties’ dispute over the FWS’s economic analysis is whether the FWS was required to attribute to the critical habitat designation economic burdens that would exist even in the absence of that designation. The parties agree that the FWS applied the “baseline” approach to the economic analysis. Under this approach, any economic impacts of protecting the owl that will occur regardless of the critical habitat designation—in particular, the burdens imposed by listing the owl—are treated as part of the regulatory “baseline” and are not factored into the economic analysis of the effects of the critical habitat designation.¹² Arizona Cattle, relying on the Tenth Circuit’s decision in *New Mexico Cattle Growers Association*, argues that this was error and that the FWS was required to apply a “co-extensive” approach to the economic analysis. Under the co-extensive approach, the agency must ignore the protection of a species that results from the listing decision in considering whether to designate an area as critical habitat. Any economic burden that designating an area would cause must be counted in the economic analysis, even if the same burden is already imposed by listing the species and, therefore, would exist even if the area were not designated.

¹²For example, suppose that the decision to list the owl as endangered resulted in a ban on logging in a particular area, and that designating that area as critical habitat would independently result in the same ban. Because the listing decision would result in the logging ban even if the agency did not designate critical habitat in that area, the baseline approach would not treat the ban as a burden that was imposed by the critical habitat designation.

[17] In *New Mexico Cattle Growers Association* the Tenth Circuit held that the baseline approach was impermissible under the ESA. See 248 F.3d at 1285. It did so, however, relying on an FWS regulation that defined “destruction or adverse modification” as effectively identical to the standard for determining whether an agency action places a species in “jeopardy.” See *id.* at 1283-85; see also *Gifford Pinchot*, 378 F.3d at 1069-70.¹³ The Tenth Circuit held that this regulation rendered an economic analysis relying on the baseline approach “virtually meaningless” because it allowed the agency, in all cases, to find no economic impact to the critical habitat designation. See *N.M. Cattle Growers Ass’n*, 248 F.3d at 1283-85. Our court and others have since found the agency’s definition of “adverse modification” too narrow. See *Gifford Pinchot*, 378 F.3d at 1070; see also *Ctr. for Biological Diversity v. BLM*, 422 F. Supp. 2d 1115, 1151-53 (N.D. Cal. 2006); *Cape Hatteras Access Pres. Alliance*, 344 F. Supp. 2d at 128-30. We therefore reject the Tenth Circuit’s approach in *New Mexico Cattle Growers Association* as relying on a faulty premise and hold that the FWS may employ the baseline approach in analyzing the critical habitat designation.

The baseline approach is, if anything, more logical than the co-extensive approach. The very notion of conducting a cost/benefit analysis is undercut by incorporating in that analysis costs that will exist regardless of the decision made.¹⁴ Moreover, the practical relevance of the economic analysis

¹³The Tenth Circuit declined to address whether the FWS’s definition of “adverse modification” was invalid. See *N.M. Cattle Growers*, 248 F.3d at 1283-85.

¹⁴We note further the confusion engendered by the co-extensive approach on the “benefit” side of the equation. If the FWS must consider “burdens” imposed by the critical habitat designation as if there were no protections imposed by the listing decision, must it also assume that in the absence of the critical habitat designation the species is entirely unprotected in considering the “benefits” of designating a particular area? The co-extensive approach runs the risk of becoming a purely academic exercise.

under the ESA is to determine the benefits of excluding or including an area in the critical habitat designation: if there is no net benefit (such as a reduction in economic impacts) to excluding the area, the agency must designate it. *See* 16 U.S.C. § 1533(b)(2). The baseline approach, in contrast to the co-extensive approach, reflects this purpose.

Congress has directed the FWS to list species, and thus impose a regulatory burden, without consideration of the costs of doing so. *See* 16 U.S.C. § 1533(a); *N.M. Cattle Growers*, 248 F.3d at 1282. It would be strange to conclude that Congress intended the FWS to consider costs at the critical habitat phase that the agency was barred from considering at the listing phase where, as a result, the analysis would bear little relationship to reality.¹⁵ It would also be strange to conclude that Congress intended to use the critical habitat designation to require the agency to consider the previously irrelevant costs of listing the species, particularly given that the decision to exclude an area from critical habitat for economic reasons is discretionary. *See* 16 U.S.C. § 1533(b)(2); *Bennett v. Spear*, 520 U.S. 154, 172 (1997). The simpler explanation is that the economic analysis of the critical habitat designation is exactly what it sounds like and is not intended to incorporate the burdens imposed by listing the species.

Arizona Cattle argues that if the FWS designated critical habitat at the same time as it listed the species, *see* 16 U.S.C. § 1533(a)(3), there would be no baseline to which to compare the critical habitat designation. Even if the FWS lists the species concurrently with designating critical habitat, however, listing the species is a necessary antecedent to designating habitat. We see little inconsistency with the FWS's considering the burdens imposed by the critical habitat designation

¹⁵Although the Tenth Circuit is likely correct that inclusion of the costs of listing in the critical habitat analysis does not affect the FWS's *listing* process, *see N.M. Cattle Growers*, 248 F.3d at 1285, it has clear potential to distort the critical habitat analysis.

while taking into account those necessarily imposed by the listing decision even in these circumstances.

Finally, Arizona Cattle argues that the baseline approach allows the FWS to treat the economic analysis as a mere procedural formality. We reject the argument that, as a matter of course, the FWS will neglect its duty to perform a thorough economic analysis. To hold otherwise would amount to a presumption that the FWS will act in an arbitrary and capricious fashion, a presumption that is inconsistent with the deference the court affords agencies. *See, e.g., Smith v. U.S. Forest Serv.*, 33 F.3d 1072, 1077 n.2 (9th Cir. 1994). Furthermore, contrary to Arizona Cattle’s contention that the impact of designating critical habitat cannot be negligible, the costs of a critical habitat designation could, in fact, be subsumed by the burdens imposed by listing the species—any burden that is entirely “co-extensive” with the listing decision will reflect exactly such a case.

We hold that the FWS permissibly applied the baseline approach in conducting the economic analysis of the effects of the designation.

B. Remaining Arguments

We can easily dispose of Arizona Cattle’s two remaining challenges to the FWS’s economic analysis. First, Arizona Cattle suggests that the FWS’s analysis ignored the economic effects of designating unoccupied habitat. Having already rejected this argument’s premise—that the FWS’s critical habitat designation included unoccupied habitat—we need give no further consideration to this argument. Second, Arizona Cattle asserts that the FWS’s economic analysis ignored the difference between the jeopardy and adverse modification standard in light of *Gifford Pinchot*, and should have considered the economic impacts of additional consultations and project modifications that the adverse modification standard imposes. Arizona Cattle did not make this argument at the

district court level and we therefore do not consider it now.¹⁶ See *Solis v. Matheson*, 563 F.3d 425, 437 (9th Cir. 2009); *Harger v. Dep't of Labor*, 569 F.3d 898, 904 n.9 (9th Cir. 2009).

V. CONCLUSION

We find no fault with the FWS's designation of habitat for the Mexican Spotted Owl. The FWS did not impermissibly treat unoccupied areas as "occupied," and we hold that it permissibly applied the baseline approach in analyzing the economic impact of the critical habitat designation.

The judgment of the district court is **AFFIRMED**.

¹⁶Although we need not reach it, we note that this argument appears fundamentally inconsistent with Arizona Cattle's primary complaint regarding the FWS's application of the baseline approach. The baseline approach counts precisely these economic impacts and Arizona Cattle's disagreement with the baseline approach is, in fact, that it counts *only* impacts like these.