

**FOR PUBLICATION**

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

WILDEARTH GUARDIANS;  
WESTERN WATERSHEDS  
PROJECT,

*Plaintiffs - Appellants,*

v.

UNITED STATES DEPARTMENT  
OF AGRICULTURE ANIMAL  
AND PLANT HEALTH  
INSPECTION SERVICE WILDLIFE  
SERVICES; UNITED STATES  
FOREST SERVICE; UNITED  
STATES BUREAU OF LAND  
MANAGEMENT,

*Defendants - Appellees.*

No. 23-2944

D.C. No.  
3:21-cv-00508-  
LRH-CLB

OPINION

Appeal from the United States District Court  
for the District of Nevada  
Larry R. Hicks, District Judge, Presiding

Argued and Submitted October 8, 2024  
Las Vegas, Nevada

Filed April 21, 2025

Before: Carlos T. Bea, Morgan B. Christen, and Mark J. Bennett, Circuit Judges.

Opinion by Judge Christen

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## **SUMMARY\***

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### **Environmental Law**

The panel affirmed the district court’s summary judgment in favor of Wildlife Services, an agency within the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service, on a claim under the Wilderness Act brought by WildEarth Guardians and Western Watersheds Project (“Appellants”), but vacated the district court’s summary judgment in favor of Wildlife Services on Appellants’ claim under the National Environmental Policy Act (“NEPA”), in a case in which Appellants challenged a July 2020 Final Environmental Assessment (EA) and Decision and Finding of No Significant Impact (FONSI) issued by Wildlife Services.

The EA and FONSI authorized a predator damage and conflict management program in Wilderness Areas and Wilderness Study Areas in Nevada.

The panel rejected Appellants’ argument that if predator damage management (PDM) is conducted to support grazing operations in Wilderness Areas, it conducts a commercial

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\* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

enterprise barred by the Wilderness Act. The panel held that it was bound by *Forest Guardians v. Animal & Plant Health Inspection Services*, 309 F.3d 1141 (9th Cir. 2002) (per curiam), and that lethal PDM is a permissible activity in Wilderness Areas when conducted in support of pre-existing grazing operations.

However, the panel held that Wildlife Services' issuance of the EA and FONSI violated NEPA by failing to take the required "hard look" and to provide a convincing statement or reasons to explain why the PDM program's impacts were insignificant. The panel remanded to the district court to enter an order directing the agency to reconsider whether an Environmental Impact Statement (EIS) is required and to produce either a revised EA or an EIS.

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## COUNSEL

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Katelin Shugart-Schmidt (argued), Kevin McArdle, and Tyler M. Alexander, Attorneys, Environment and Natural Resources Division; Todd Kim, Assistant Attorney General; United States Department of Justice, Washington, D.C.; Kathryn Brinton, Attorney, Office of the Solicitor, Pacific Southwest Region, United States Department of the Interior; Chloe Bourne, Attorney-Advisor, Mountain Region; Leah Battaglioli, Trial Attorney; Annalisa Jabaily, Attorney-Advisor; Office of the General Counsel, United States Department of Agriculture; Washington, D.C.; for Defendants-Appellees.

Andrew Hursh, Wilderness Watch, Missoula, Montana, for Amici Curiae Conservation Organizations.

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## OPINION

CHRISTEN, Circuit Judge:

Appellants WildEarth Guardians and Western Watersheds Project challenge a July 2020 Final Environmental Assessment (EA) and Decision and Finding of No Significant Impact (FONSI) issued by Appellee Wildlife Services. The EA and FONSI authorize a predator damage and conflict management program in Wilderness Areas and Wilderness Study Areas in Nevada. Contrary to Appellants' contention, we conclude that the Wilderness Act does not prohibit Wildlife Services from conducting predator damage management (PDM) operations in Wilderness Areas. *Forest Guardians v. Animal & Plant Health Inspection Serv.*, 309 F.3d 1141, 1142–43 (9th Cir. 2002) (per curiam). We also conclude that Wildlife Services' issuance of the EA and FONSI in this case violated the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*, by failing to take the required “hard look” and to provide a “convincing statement of reasons to explain why [the PDM program]’s impacts are insignificant.” *Bark v. U.S. Forest Serv.*, 958 F.3d 865, 869 (9th Cir. 2020) (quoting *In Def. of Animals v. U.S. Dep’t of the Interior*, 751 F.3d 1054, 1068 (9th Cir. 2014)).

The EA is deficient in several ways that the agency will have the opportunity to reconsider on remand. First, the EA’s description of the federal lands where the proposed

PDM actions will occur is internally inconsistent. Ambiguity concerning the inclusion or exclusion of just one of the federal land designations at issue—Areas of Critical Environmental Concern—changes the geographic scope of the PDM program by over 1.4 million acres. This inconsistent description left the public to guess where Wildlife Services will operate its PDM program in Nevada and thus hindered the public’s ability to comment on the agency’s proposed actions. Wildlife Services also failed to adequately examine: (1) the potential impacts of PDM on a local scale; (2) the potential impacts of the proposed agency actions on public health; (3) the potential impacts of the proposed actions to sensitive and unique areas; and (4) the scientific uncertainty concerning lethal PDM.

We affirm the district court’s order granting summary judgment in favor of Wildlife Services on Appellants’ Wilderness Act claim but vacate the order granting summary judgment on Appellants’ NEPA claim. We remand to the district court to enter an order directing the agency to reconsider whether an Environmental Impact Statement (EIS) is required and to produce either a revised EA or an EIS.

## I

### A

Wildlife Services is an agency within the United States Department of Agriculture’s Animal and Plant Health Inspection Service. It provides PDM services in Nevada to protect privately owned livestock from predators and, less often, to protect public safety. The agency makes recommendations for reducing depredation of livestock and provides operational assistance. It conducts PDM at the request of both public and private property owners.

In conducting its PDM operations, Wildlife Services uses a variety of methods to capture and kill predators, including coyotes, mountain lions, badgers, bobcats, ravens, and bears. Non-lethal PDM methods include “habitat manipulation, husbandry, hazing, fencing, aversive/harassment devices, herding, and livestock guard animals.” Lethal methods include aerial shooting, ground shooting, snaring, live trapping, and chemical toxicants. Between 2012 and 2016, Wildlife Services killed 21,851 coyotes in Nevada, mostly by aerial shooting but also by using poison (including M-44 cyanide ejectors), trapping, and ground shooting. In the same period in Nevada, Wildlife Services killed 19,031 ravens, 239 badgers, 120 mountain lions, 24 foxes, 20 bobcats, and 7 black bears.

The majority of PDM in Nevada occurs on federal lands managed by the Bureau of Land Management (BLM). The BLM manages federal lands with a variety of designations that are open to grazing through allotments. One of those land designations is a Wilderness Area, where a statutory exception in the Wilderness Act permits grazing so long as the grazing operation was established before the area was designated as Wilderness.<sup>1</sup> 16 U.S.C. § 1133(d)(4).

In 2012, WildEarth Guardians filed a lawsuit alleging that Wildlife Services’ continued reliance on a 1994 programmatic EIS for PDM in Nevada violated NEPA. *See WildEarth Guardians v. U.S. Dep’t of Agric.*, 795 F.3d 1148, 1153 (9th Cir. 2015). The parties settled that suit in 2016.

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<sup>1</sup> A Wilderness Area is a federal land designation protecting “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions.” 16 U.S.C. § 1131(c).

As part of the settlement, Wildlife Services agreed to cease all PDM activities in Nevada Wilderness and Wilderness Study Areas until it completed a new NEPA analysis for the Nevada PDM program.<sup>2</sup> Also pursuant to the agreement, Wildlife Services continued its existing PDM program in the rest of the state while it undertook a new NEPA process.

In 2019, Wildlife Services released a draft EA that examined impacts of its PDM program in Nevada and the anticipated impacts of returning PDM to Wilderness and Wilderness Study Areas. The EA examined five alternative approaches to conducting PDM in Nevada.<sup>3</sup> Alternative 1, the No Action Alternative, proposed continuing Wildlife Services' PDM operation as it existed after the parties' settlement, *i.e.*, outside of Wilderness and Wilderness Study Areas. The agency's preferred alternative, Alternative 2, proposed resuming PDM in Wilderness and Wilderness Study Areas and maintaining the agency's ongoing PDM

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<sup>2</sup> Wilderness Study Areas are lands with similar qualities to Wilderness Areas that the BLM manages "so as not to impair the suitability of such areas for preservation as wilderness" if Congress later chooses to designate such areas as Wilderness. 43 U.S.C. § 1782(c).

<sup>3</sup> The five alternatives were:

- Alternative 1: No Action Alternative – continue PDM outside of Wilderness and Wilderness Study Areas.
- Alternative 2: Proposed Action – continue current program and resume a limited set of PDM activities in Wilderness and Wilderness Study Areas.
- Alternative 3: Non-lethal PDM required before applying lethal PDM.
- Alternative 4: Lethal PDM only for cases of human/pet health or safety.
- Alternative 5: No PDM activities.

program as described in Alternative 1 in other parts of the state.

Alternative 2 included a more limited range of PDM actions in Wilderness and Wilderness Study Areas than the range of techniques Wildlife Services proposed to use in other parts of the state, but it still included the option of using lethal PDM. Under Alternative 2, Wildlife Services proposed providing PDM assistance in Wilderness Areas only to prevent “serious losses” of domestic livestock, to protect human health and safety, or to protect federally listed threatened or endangered species. Alternative 2 also specified that in Wilderness Areas, Wildlife Services would target only individual offending animals, use limited lethal methods, excluding aerial shooting and chemical control techniques, and travel only by foot or on horseback. Wildlife Services proposed some methods of non-lethal control in Wilderness Areas, such as recommending that ranchers shift breeding schedules and use shepherd dogs. Alternative 2 does not include the use of disruptive deterrence methods like lights and sirens.

Alternative 2 allows Wildlife Services to provide more extensive assistance in Wilderness Study Areas than in Wilderness Areas. For example, Wildlife Services may respond to requests to “protect domestic livestock,” not just to prevent serious losses; it may target groups of predators, rather than just individual predators to which reported damage is attributed; and it may use a broader range of methods, including aerial shooting and chemical control techniques. Under Alternative 2, Wildlife Services may travel by vehicle on existing roads in Wilderness Study Areas to effect PDM. Aerial hazing, lights, and sounds are permissible non-lethal PDM activities in Wilderness Study Areas under Alternative 2.



The 2019 draft EA analyzed the potential impacts of PDM across the entire state of Nevada, relying primarily on population data for target predators collected by the Nevada Department of Wildlife. The draft EA concluded that lethal PDM is an effective method for reducing the depredation of livestock, and it pointed to several scientific studies published before 2015 that support the efficacy of lethal PDM for coyotes. The draft EA also relied on two government audits that concluded Wildlife Services complies with its own policies, and that ranchers generally perceive Wildlife Services' work to be effective.

In public comments submitted in response to the draft EA, Appellants raised five concerns relevant to this appeal: (1) the uncertain geographic scope of Wildlife Services' PDM activities; (2) the inadequate analysis of impacts to local ecosystems; (3) the risks to public health from the use of lead shot and M-44 cyanide ejectors; (4) the potential impacts of PDM on federally protected Wilderness and Wilderness Study Areas; and (5) the scientific uncertainty concerning the efficacy of lethal PDM.

Appellants filed public comments arguing that the impacts of PDM are not likely to be evenly distributed throughout the state and, accordingly, the draft EA's statewide analysis diluted the impacts of PDM on local areas. The comments also argued that the agency was required to prepare an EIS due to PDM's impacts on Wilderness and Wilderness Study Areas, and its uncertain impacts to other ecologically critical or protected areas.

Appellants' comments on the draft EA further urged Wildlife Services to prepare an EIS to analyze a growing body of scientific evidence suggesting that lethal PDM may be ineffective at reducing livestock depredation in the long

term. In support, Appellants' comments cited more recent studies concluding that lethal predator control may exacerbate wildlife-livestock conflicts in some cases, rather than reducing them. Other commentators cited multiple scientific reviews published from 2016 to 2018 that challenged the methodology of the earlier scientific studies the draft EA cited in support of the efficacy of lethal PDM.

In July 2020, Wildlife Services released a final EA adopting Alternative 2 and a FONSI. The latter explained the agency's decision not to prepare an EIS. The final EA still fails to assess PDM's impacts at the local level. It responds to public comments expressing concerns about site-specific or localized impacts by noting that "[w]hile PDM is not evenly distributed across the state, it is also not heavily concentrated on any area as to have a significant adverse effect on any wildlife population." The EA includes tables summarizing the predicted extent of PDM in Wilderness and Wilderness Study Areas. The EA responds to comments on the potential dangers of M-44 devices by noting that the cited human injuries and pet deaths caused by M-44 cyanide ejectors did not occur in Nevada, and that use patterns in Nevada serve to minimize risks. Regarding scientific uncertainty, the final EA substantively discusses only two of several studies related to the efficacy of lethal PDM cited in the public comments. The EA explains that it does not address the other studies because they were either not peer-reviewed, not relevant, or incapable of changing the agency's analysis substantively. The EA does not specify in which category each omitted publication falls.

## **B**

Appellants filed this lawsuit in December 2021. The operative complaint asserts that: (1) conducting PDM in

Wilderness Areas violates the Wilderness Act, 16 U.S.C. § 1131 *et seq.*, and related statutes that designate Wilderness Areas in Nevada; (2) Wildlife Services violated NEPA because it failed to adequately consider the impact of the agency's proposed action on the environment; and (3) NEPA requires an EIS for PDM in Nevada. The parties filed cross-motions for summary judgment, and the district court ruled in favor of Wildlife Services. The court concluded that binding precedent in the Ninth Circuit allows predator control in Wilderness Areas as a means of supporting grazing operations that predate the designation of the areas as Wilderness. On the NEPA claims, the district court concluded that the agency reasonably decided to conduct a statewide analysis. The district court also upheld the agency's decision not to prepare an EIS because it found the agency: (1) provided a "thorough and reasonable discussion" regarding the health and safety risks of lead shot and M-44 cyanide ejectors; (2) reasonably determined that PDM would not "significantly impair" Wilderness or Wilderness Study Areas; and (3) offered an "extensive review" of opposing viewpoints and scientific evidence on the impacts and efficacy of lethal PDM.

Appellants timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1291. We affirm in part, vacate in part, and remand.

## II

We review *de novo* the district court's summary judgment order. *Wilderness Soc'y v. U.S. Fish & Wildlife Serv.*, 353 F.3d 1051, 1059 n.5 (9th Cir. 2003) (en banc), *amended by* 360 F.3d 1374 (9th Cir. 2004) (en banc). The Administrative Procedure Act (APA) sets out the standards for review of agency compliance with the Wilderness Act

and NEPA. *See id.* at 1059. Pursuant to the APA, we set aside agency action if the agency acted in a manner that was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). “Agency action is arbitrary and capricious ‘if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.’” 350 *Mont. v. Haaland*, 50 F.4th 1254, 1263 (9th Cir. 2022) (quoting *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983)).

### III

#### A

Appellants first challenge the legality of conducting lethal PDM activities in support of grazing operations in Wilderness Areas. Specifically, Appellants argue that if PDM is conducted to support grazing, it constitutes a commercial enterprise barred by the Wilderness Act. The agency argues that our decision in *Forest Guardians v. Animal & Plant Health Inspection Service*, 309 F.3d 1141 (9th Cir. 2002) (*per curiam*), forecloses Appellants’ challenge. On this claim, we agree with the agency.

The Wilderness Act “established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as ‘wilderness areas.’” 16 U.S.C. § 1131(a). Wilderness Areas are areas of at least five thousand acres that are free from “permanent improvements or human habitation” and are “protected and managed so as to preserve [their] natural conditions.” *Id.* § 1131(c). To

preserve the wilderness character of Wilderness Areas, the Act contains the following broad prohibition:

Except as specifically provided for in this chapter, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this chapter[.]

*Id.* § 1133(c).

This general prohibition in Section 1133(c) is subject to several specific exceptions contained in Section 1133(d). Relevant here, the “grazing exception” specifies that “the grazing of livestock, where established prior to September 3, 1964, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.” *Id.* § 1133(d)(4)(2). Subsequent federal designations of Wilderness Areas in Nevada also specify that “the grazing of livestock in areas in which grazing is established as of the date of enactment of this Act shall be allowed to continue . . . subject to such reasonable regulations, policies, and practices that the Secretary considers necessary[.]” Pam White Wilderness Act of 2006, Pub. L. No. 109-432, § 324(b), 120 Stat. 3030, 3033; *see also* Lincoln County Conservation, Recreation, and Development Act of 2004, Pub. L. No. 108-424, § 204(b), 118 Stat. 2403, 2409 (stating the same).

In *Forest Guardians*, we held that the grazing exception in Section 1133(d)(4) “implicitly includes operations to support that grazing, such as lethal control of predators.”

*Forest Guardians*, 309 F.3d at 1142 (citation omitted).<sup>4</sup> Appellants attempt to avoid this precedent by arguing that *Wilderness Society v. U.S. Fish & Wildlife Service*, 353 F.3d 1051 (9th Cir. 2003) (en banc), is irreconcilable with, and thus has implicitly overruled, *Forest Guardians*. We disagree.

Subsequent decisions from the Supreme Court or our court sitting en banc implicitly overrule prior decisions of a three-judge panel when they “undercut the theory or reasoning underlying the prior circuit precedent in such a way that the cases are clearly irreconcilable.” *Miller v. Gammie*, 335 F.3d 889, 900 (9th Cir. 2003) (en banc); *Overstreet v. United Bhd. of Carpenters & Joiners, Loc. Union No. 1506*, 409 F.3d 1199, 1205 n.8 (9th Cir. 2005).

In *Wilderness Society*, we considered whether a fish hatchery located within a Wilderness Area in Alaska constituted a commercial activity prohibited by the Wilderness Act. 353 F.3d at 1055. We interpreted the term “commercial enterprise” in Section 1133(c) to determine the scope of the activities prohibited in Wilderness Areas and decided that the hatchery violated the Wilderness Act because its purpose was primarily to support a commercial fishery. *Id.* at 1064–67. *Wilderness Society* did not have occasion to address, much less interpret, Section 1133(d)’s grazing exception; it relied on Section 1133(c)’s general prohibition of commercial activities because the facts in

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<sup>4</sup> *Forest Guardians* also interpreted a federal statute that designated Wilderness Areas in Arizona, which included an exception providing that the “[g]razing of livestock in wilderness areas established by this title, where established prior to the date of the enactment of this Act, shall be administered in accordance with section 4(d)(4) of the Wilderness Act.” Arizona Wilderness Act of 1984, Pub. L. No. 98-406, § 101(f)(1), 98 Stat. 1485, 1489.

*Wilderness Society* did not implicate any of the statutory exceptions. *Id.* at 1061–67 (noting that the exceptions were “not relevant” to the holding).

Because *Wilderness Society* is not irreconcilable with *Forest Guardians*, we are bound by *Forest Guardians* and hold that lethal PDM is a permissible activity in Wilderness Areas when conducted in support of pre-existing grazing operations. See 16 U.S.C. § 1133(d)(4)(2); *Forest Guardians*, 309 F.3d at 1142.

## B

Appellants also challenge several aspects of the EA under NEPA. First, they claim that Wildlife Services failed to examine PDM in the relevant geographic context to adequately evaluate the environmental impacts of the agency’s proposed action, specifically at the local scale. Second, Appellants argue that Wildlife Services must prepare an EIS to satisfy its obligations under the applicable regulations, because the intensity factors indicate the PDM program will have significant impacts on the environment.

“NEPA declares a broad national commitment to protecting and promoting environmental quality.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989) (citing 42 U.S.C. § 4331). “To ensure that this commitment is infused into the ongoing programs and actions of the Federal Government,” NEPA requires that federal agencies consider the environmental impacts of major federal actions and make that information available to the public. *Id.* at 348–49 (internal quotation marks omitted) (quoting 115 Cong. Rec. 40416). NEPA ensures “that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts,” *id.* at 349, and “take a

hard look at environmental consequences of their proposed actions,” 350 *Mont.*, 50 F.4th at 1265 (internal quotation marks omitted) (quoting *League of Wilderness Defs./Blue Mountains Biodiversity Project v. Connaughton*, 752 F.3d 755, 762–63 (9th Cir. 2014)).

NEPA also serves a broad and important public information purpose. It “guarantees that the relevant information will be made available to the larger audience” interested in and impacted by the proposed federal action. *Robertson*, 490 U.S. at 349; 42 U.S.C. § 4332(C) (“Copies of [the EIS] and the comments and views of the appropriate Federal, State, and local agencies . . . shall be made available . . . to the public . . .”). A NEPA document is an important “springboard for public comment” and engagement. *Robertson*, 490 U.S. at 349. Following NEPA’s procedural requirements “ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process.” *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1066 (9th Cir. 2002) (quoting *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983)).

When initiating the NEPA process, an agency may first prepare “an EA to decide whether the environmental impact of a proposed action is significant enough to warrant preparation of an EIS.” *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998). An EA is a “concise public document,” 40 C.F.R. § 1508.9(a) (2020), that “[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an



environmental impact statement or a finding of no significant impact,” *id.* § 1508.9(a)(1).<sup>5</sup>

We have explained that “[i]f the agency does not prepare an EIS, it must submit a ‘convincing statement of reasons’ to explain why the proposed action’s environmental impacts will not be significant. . . . Conclusory assertions about insignificant impacts will not suffice.” *Env’t Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 879 (9th Cir. 2022) (citation omitted). Thus, we review an EA “with two purposes in mind: to determine whether it has adequately considered and elaborated the possible consequences of the proposed agency action when concluding that it will have no significant impact on the environment, and whether its determination that no EIS is required is a reasonable conclusion.” *Id.* at 872 (quoting *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1215 (9th Cir. 2008)).

The applicable NEPA regulations required Wildlife Services to consider both the “context” and “intensity” of the resumption of PDM in Wilderness and Wilderness Study Areas to determine whether the proposed action would “significantly” impact the environment and warrant an EIS. 40 C.F.R. § 1508.27 (2020). “Context” requires agencies to analyze the proposed action “in several contexts such as society as a whole . . . , the affected region, the affected interests, and the locality.” *Id.* § 1508.27(a) (noting that, “in

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<sup>5</sup> The NEPA regulations were amended after the agency decision at issue in this appeal. See 85 Fed. Reg. 43,304, 43,357–76 (July 16, 2020) (implementing changes effective September 14, 2020). We cite to the regulations in force at the time Wildlife Services published its July 2020 EA. See *Env’t Def. Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 879 n.5 (9th Cir. 2022).

the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole”). “Intensity” is the “severity of impact” of the proposed action. *Id.* § 1508.27(b). The regulations list ten factors agencies consider when evaluating intensity. *Id.*

## 1

Appellants argue that the EA is deficient because it “provides only a broad-scale, generic analysis of possible effects of the statewide activities” and it therefore does not properly analyze any potential localized impacts. In this respect, we discern two defects in the EA.

First, the EA fails to consistently describe the geographic areas where the planned activities will occur.<sup>6</sup> The “Geographic Scope” section of the EA states that no PDM will occur on “certain special designations” of federal land: “National Park Service lands (which include Lake Mead National Recreation Area), [U.S. Fish and Wildlife Service] refuges, Inyo National Forest, and Research Natural Areas.”

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<sup>6</sup> Wildlife Services argues that the Appellants forfeited this argument by failing to raise it in their public comments. Not so. In their public comments on the draft EA, Appellants objected that the geographic scope of the proposed action was unclear. Specifically, Appellants objected that the draft “fail[ed] to specify . . . other specially protected areas . . . affected by the [Wildlife Services]-Nevada PDM program.” In 2016, their comments on the proposed scope for the post-settlement NEPA process also raised concerns about the proposed action’s impacts to specially designated areas, arguing that the agency must consider the impact of PDM on individual Wilderness Areas, Wilderness Study Areas, Areas of Critical Environmental Concern, National Recreation Areas, National Conservation Areas, National Monuments, National Historic and Scenic Routes and Trails, and Wild and Scenic Rivers, “among other unique special areas.”

The EA also states that under Alternative 2, all work outside of Wilderness and Wilderness Study Areas will have the same geographic scope as Alternative 1. But Alternative 1's list of areas where no PDM will occur is different from the list in the Geographic Scope section. The EA's description of Alternative 1 incorporates a map showing areas within which Wildlife Services has operated in Nevada since the parties' 2016 settlement agreement and where it would continue to operate pursuant to Alternative 1. According to this map, Wildlife Services has *not* operated in "Special Designation Areas," which it identifies as Wilderness and Wilderness Study Areas, National Monuments, National Conservation Areas, Areas of Critical Environmental Concern, and National Scenic and Historic Trails. The map suggests that in areas other than Special Designation Areas, Wildlife Services has operated and "could respond to requests for assistance."

Because the itemized areas excluded in the Geographic Scope section of the EA do not match the areas excluded under Alternative 2, the area where the proposed PDM will take place is fundamentally unclear. Inconsistency regarding the land designations included in Alternative 2 has a significant impact on the geographic scope of the proposed PDM. For instance, the inclusion or exclusion of Areas of Critical Environmental Concern alone changes the area of the proposed PDM by 1.4 million acres.<sup>7</sup>

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<sup>7</sup> Under the Federal Land Policy and Management Act, the BLM designates lands as Areas of Critical Environmental Concern where "special management attention is required . . . to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." 43 U.S.C. § 1702(a).

Asked about this discrepancy at oral argument, Wildlife Services suggested that we interpret the EA as exempting the areas identified in the Geographic Scope section of the EA, *and* the list of Special Designation Areas that Alternative 2 incorporates from Alternative 1. This suggestion overlooks Wildlife Services' duty under NEPA to inform the public about its proposed action at the outset of the NEPA process. *Kern*, 284 F.3d at 1066; *Robertson*, 490 U.S. at 349. A clear disclosure of geographic areas where PDM may be conducted is essential to ensuring that the public is both informed and able to participate meaningfully in the NEPA process. *Robertson*, 490 U.S. at 349. By leaving the public guessing where Wildlife Services proposes to conduct PDM, the agency vitiated NEPA's purpose because it deprived the public of the ability to evaluate the impacts of the agency's proposed actions.<sup>8</sup>

Appellants also argue that the EA dilutes the potential impacts of PDM in Nevada by analyzing impacts only on a statewide scale. An agency has the discretion to determine the "physical scope used for measuring environmental

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<sup>8</sup> There appears to be another discrepancy between the FONSI and the EA, which we identify so Wildlife Services will have an opportunity to address it on remand. The FONSI lists "National Recreation Areas" in the list of land designations where PDM will not occur. The Geographic Scope section of the EA, however, does not include all National Recreation Areas in the list of areas where PDM will not occur; it lists only the Lake Mead National Recreation Area. The agency's response to comments about impacts to protected areas stated that "[t]he only National Recreation Area in Nevada is Lake Mead NRA, which is managed by [the National Park Service]." But it appears there is at least one other National Recreation Area in Nevada: The Spring Mountains National Recreation Area is north of Las Vegas, managed by the U.S. Forest Service and established in 1993. *See* Spring Mountains National Recreation Area Act, Pub. L. No. 103-63, 107 Stat. 297, 297-98 (1993).

impacts.” *Friends of the Wild Swan v. Weber*, 767 F.3d 936, 943 (9th Cir. 2014) (citation omitted) (“Identifying the appropriate geographic scope ‘is a task assigned to the special competency of the appropriate agenc[y].’” (alteration in original) (quoting *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976))); *see also Forest Guardians*, 309 F.3d at 1143. But this discretion is not unlimited. Agencies must “balance need for a comprehensive analysis versus considerations of practicality, while also keeping in mind that use of a larger analysis area can dilute the apparent magnitude of environmental impacts.” *Friends of the Wild Swan*, 767 F.3d at 943; *Idaho Sporting Congress, Inc. v. Rittenhouse*, 305 F.3d 957, 973–74 (9th Cir. 2002); *see also California v. Block*, 690 F.2d 753, 765 (9th Cir. 1982) (noting that an agency’s decision to undergo a national-scale project did not permit it to “rely upon forecasting difficulties or the task’s magnitude to excuse the absence of a reasonably thorough site-specific analysis of the decision’s environmental consequences”). If a project may have potentially significant impacts on a local area or a local wildlife population, the agency must analyze such impacts. *See Anderson v. Evans*, 371 F.3d 475, 489–90 (9th Cir. 2004). Overall, the agency must provide “a reasoned decision and support for its chosen level of analysis.” *Friends of the Wild Swan*, 767 F.3d at 943.

Wildlife Services defends its decision to analyze the impacts of PDM only on a statewide scale by asserting that “[w]hile PDM is not evenly distributed across the state, it is also not heavily concentrated on any area as to have a significant adverse effect on any wildlife population.” But the EA does not include sufficiently detailed information to support this assertion.

The record shows that PDM has historically occurred in greater concentration in the northeast part of the state. On average, from 2012 through 2016, approximately 76% of annual lethal coyote takes and 65% of annual lethal raven takes occurred in five counties in that area: Elko, Humboldt, White Pine, Eureka, and Lander. Together, these counties comprise approximately 41% of the state.<sup>9</sup> Of the nine Wilderness Areas with an “extremely high” likelihood of PDM operations, seven are entirely within White Pine County, where Wildlife Services killed the second highest number of mountain lions each year from 2012 through 2016, on average. The EA predicts that 507,181 acres of Wilderness and Wilderness Study Areas are “extremely likely” to receive PDM nearly year-round, accounting for approximately 7.8% of total Wilderness and Wilderness Study Areas in Nevada, or just 0.7% of total acres in Nevada.<sup>10</sup> And Appellants provided one example of highly concentrated lethal PDM in Nevada: Wildlife Services killed 884 coyotes on a single ranch over a two-year period by aerial gunning. As such, evidence in the record appears to suggest that PDM is concentrated in some parts of the state and may be very concentrated in certain localities. Against this backdrop, the EA provides insufficient evidence or explanation to support its conclusory assertion that PDM

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<sup>9</sup> *QuickFacts*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/fact/table/NV,landercountynevada,eurekacountynevada,whitepinecountynevada,humboldtcountynevada,elkocountynevada> [<https://perma.cc/28ED-BUKQ>] (listing total land area of Nevada and relevant Nevada counties).

<sup>10</sup> Wildlife Services defines “extremely likely” as a 95% to 100% chance the agency will engage in PDM in that Wilderness or Wilderness Study Area in the next ten years, in light of “historical depredation” that is “expect[ed] . . . to continue.”

operations are “not heavily concentrated on any area as to have a significant adverse effect on any wildlife population.”

We recognize that the evidence recited here does not establish that PDM activities in any locality imperil the local wildlife populations by suppressing them below their respective sustainable levels. It may be that PDM activities are “not evenly distributed across” Nevada, but their concentration is not at a level “as to have a significant adverse effect on any wildlife population.” That said, it is ultimately Wildlife Services’ burden to provide convincing “support for its chosen level of analysis.” *Friends of the Wild Swan*, 767 F.3d at 943. We find that Wildlife Services has fallen short of carrying its burden here.

Wildlife Services argues that it was reasonable to use a statewide scope in its analysis because the agency does not know the “specific locations or times at which affected resource owners would determine that a damage problem has become intolerable to the point that they request assistance” and the agency “must be ready to provide assistance on short notice anywhere in Nevada to protect any resource or human/pet health or safety upon request where consistent with applicable federal law.” The agency does not adequately explain why the benefits of a statewide analysis, or the need for agency readiness, negate the need to conduct additional site-specific analyses, particularly for areas in which the current data show PDM activities are likely to be concentrated. *Cf. Blue Mountains Biodiversity Project v. Jeffries*, 99 F.4th 438, 448 (9th Cir. 2024) (finding regional scope of an EA reasonable because the EA analyzed some local impacts within the overall regional scope); *Anderson*, 371 F.3d at 489–92 (requiring EIS when impacts of whale hunting on local whale subpopulation were highly uncertain even though there was no dispute that impacts on regional

population would be insignificant); *see also Block*, 690 F.2d at 765 (holding action’s national scope insufficient to excuse the “absence of a reasonably thorough site-specific analysis of the [action’s] environmental consequences”).

In sum, Wildlife Services did not clearly inform the public where the agency’s proposed action would occur and failed to adequately explain its decision not to analyze local impacts in addition to its statewide assessment. *Robertson*, 490 U.S. at 349. On this record, the agency failed to “adequately consider[] and elaborate[] the possible consequences” of its PDM program. *Bureau of Ocean Energy Mgmt.*, 36 F.4th at 871.

## 2

Appellants separately challenge Wildlife Services’ analysis of three “intensity” factors. First, Appellants argue that the EA inadequately analyzes impacts to public health and safety because it failed to consider the potential impacts of lead shot and cyanide on the environment. 40 C.F.R. § 1508.27(b)(2). Second, Appellants argue that the agency failed to adequately examine impacts to unique and sensitive areas, specifically Wilderness and Wilderness Study Areas. *Id.* § 1508.27(b)(3). Third, Appellants argue the agency failed to respond to studies that raise significant uncertainty concerning the efficacy of lethal PDM. *Id.* § 1508.27(b)(5). Combined, Appellants argue these factors show that the impact on the environment will be significant and thus consideration of the intensity factors requires the preparation of an EIS.<sup>11</sup>

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<sup>11</sup> Appellants also argue that three additional factors weigh in favor of requiring the preparation of an EIS. They argue that the EA fails to



When determining a proposed project's "intensity" or severity of impact, the applicable regulations require Wildlife Services to consider ten factors:

- (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
- (2) The degree to which the proposed action affects public health or safety.
- (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

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examine cumulative impacts on local populations, 40 C.F.R. § 1508.27(b)(7), which we address in our discussion of the EA's lack of site-specific analysis. They argue that lethal PDM is a "highly controversial" activity, *id.* § 1508.27(b)(4), which we address in our discussion of scientific uncertainty. Finally, Appellants argue that the proposed PDM activities threaten a violation of another environmental protection law, namely, the Wilderness Act. *Id.* § 1508.27(b)(10). Because we hold that *Forest Guardians* forecloses Appellants' Wilderness Act claim, this factor does not lend support to Appellants' contention that an EIS is required.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

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

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

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

*Id.* § 1508.27(b). In some cases, the presence of just one of these intensity factors can be sufficient to warrant an EIS. *See, e.g., Bark*, 958 F.3d at 870–71 (finding scientific

dispute over impacts of forest thinning on fire suppression sufficient to warrant an EIS). Often, however, multiple factors are present when we conclude that an EIS is required. *See, e.g., Bureau of Ocean Energy Mgmt.*, 36 F.4th at 879–82 (concluding that uncertain impacts from offshore oil and gas activity, proximity to unique geographic areas, and potential impacts to endangered species warranted production of an EIS); *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 731 (9th Cir. 2001) (concluding that both the “degree of uncertainty” and the “degree of controversy” concerning a proposed action “necessitate[d] preparation of an EIS,” after recognizing that the “unique characteristics of Glacier Bay [National Park] [we]re undisputed and of overwhelming importance”), *abrogated in part on other grounds by Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 157 (2010).

Appellants persuasively argue that the agency inadequately considered the first intensity factor at issue: the “degree to which the proposed action affects public health or safety.” 40 C.F.R. § 1508.27(b)(2). Wildlife Services’ response to concerns regarding the impacts of lead shot on the environment exemplifies this shortcoming.

The EA reports that Wildlife Services anticipates using, on average, approximately 600 pounds of lead ammunition in Nevada each year, but it fails to address whether the unequal geographic distribution of PDM operations will result in a concentrated introduction of lead into the environment. Indeed, the EA does not identify the amount of lead Wildlife Services contemplates introducing in Nevada each year on a per-acre basis, let alone the amount of lead Wildlife Services intends to introduce in areas where PDM activities are likely to occur. Instead, the EA provides only the estimated average amount of lead that Wildlife

Services introduces each year, per acre, across all fifty states as a result of its nationwide PDM program. Because the EA gave the public no indication of the potential impact of lead shot in localized and potentially sensitive areas, we conclude that the EA failed to comply with NEPA.

Wildlife Services' response in the EA to concerns regarding the potential impacts of M-44 cyanide ejector devices was also insufficient. The record shows that one of the methods used to target coyotes during the relevant period was M-44 cyanide ejectors, which Wildlife Services baited and placed in small holes in the ground. When triggered, the devices release powdered sodium cyanide, which is intended to enter an animal's mouth. Appellants' comments in response to the draft EA included a non-exhaustive list of twelve incidents since 1994 in which humans or pets inadvertently triggered these devices. The injuries reportedly suffered by adults and children included severe eye damage, poisoning, and lasting disability. The comments also reported that dogs have died after triggering cyanide ejectors.

Wildlife Services responded that although it was "aware of those incidents," "none of [them] occurred in Nevada" and "use patterns in Nevada," coupled with revised safety protocols like posted warning signs, reduce the risk of harm. The EA also dismissed the risk to members of the public "who obey the law" because the product label restricts use to only certified applicators who are required to follow the label restrictions and the products are not commercially available to the public. We easily conclude that these responses do not reflect reasoned consideration of the potential dangers of using cyanide ejectors. Pet dogs and children cannot be expected to read posted warning signs; the record shows that the devices in the field do not have

external warning labels, but rather that labels appear only on the cyanide canisters *inside* the trigger devices; and although the reported injuries occurred outside Nevada, Wildlife Services does not explain why its use patterns suggest that similar injuries would not occur in Nevada.

On appeal, Wildlife Services' brief shifts gears and argues that the BLM adopted a policy in 2023 prohibiting the use of M-44 cyanide ejectors on BLM-managed lands and that Congress effectively prohibited Wildlife Services from purchasing or using M-44 cyanide ejectors in a joint explanatory statement accompanying a 2024 appropriations bill.<sup>12</sup> Wildlife Services' confirmation at oral argument that it no longer uses these devices does not cure the EA's failure to provide a reasoned response that engaged with a well-documented safety concern regarding the use of these devices. Depending on whether the use of these devices is contemplated when the EA is reconsidered on remand, the agency will have another opportunity to provide a more fulsome explanation that engages with this safety concern.

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<sup>12</sup> Bureau of Land Management & Wildlife Services, *Master Memorandum of Understanding Between the U.S. Department of the Interior Bureau of Land Management and the U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services* 5 (2023), <https://www.blm.gov/sites/default/files/docs/2024-02/IB2024-024%20att1.pdf> [<https://perma.cc/8F2J-TZX5>] (“[Wildlife Services] shall not use M-44s that deliver sodium cyanide on any BLM-administered lands.”); *Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2024 Congressional Directives* 12 (2024), [https://docs.house.gov/billsthisweek/20240304/FY24%20Ag%20Conference%20JES%20scan%203.2.24%20\(1\).pdf](https://docs.house.gov/billsthisweek/20240304/FY24%20Ag%20Conference%20JES%20scan%203.2.24%20(1).pdf) [<https://perma.cc/A4PW-H37Q>] (“The Secretary is prohibited from purchasing, deploying, or training third parties on the use of M-44 sodium cyanide ejector devices (‘M-44s’), including any components or parts[.]”).

We also agree with Appellants that the district court erred as a matter of law when it reviewed Wildlife Services' evaluation of the second challenged intensity factor: the "[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas." *Id.* § 1508.27(b)(3). Any impacts to nearby unique areas weigh in favor of ordering an EIS, regardless of the severity of the impact. *Bureau of Ocean Energy Mgmt.*, 36 F.4th at 880 (finding this factor weighed in favor of requiring an EIS even when the action would occur adjacent to, but outside of, a national park and marine sanctuary); *see also W. Watersheds Project v. USDA APHIS Wildlife Servs.*, 320 F. Supp. 3d 1137, 1150 (D. Idaho 2018) (finding high probability that PDM would occur in a Wilderness Study Area and an Area of Critical Environmental Concern weighed in favor of requiring an EIS).

On appeal, Wildlife Services reprises the argument it made in the district court that any impact to a unique or ecologically important area must be significant or severe for this intensity factor to favor requiring an EIS. In support of this proposition, Wildlife Services cites out-of-circuit case law requiring consideration of the "degree to which the proposed action affects" every intensity factor. *WildEarth Guardians v. Wehner*, 526 F. Supp. 3d 898, 911 (D. Colo. 2021) (quoting *Hillsdale Env't Loss Prevention, Inc. v. U.S. Army Corps of Eng'rs*, 702 F.3d 1156, 1180 (10th Cir. 2012)). The district court adopted Wildlife Services' formulation of this standard and held that consideration of the unique characteristics of the area did not favor requiring the preparation of an EIS because the proposed PDM would

not “significantly impair” Wilderness Areas or Wilderness Study Areas. This was an error of law.

Wildlife Services’ reading of Section 1508.27(b)(3) deviates from the regulation’s plain text and our case law by inserting the word “significant.” By its terms, the regulation instructs agencies to consider the unique characteristics of geographic areas that will be affected by the proposed action, without requiring the impacts to reach a particular threshold before the agency must consider them. The regulation’s instruction to consider the “degree to which” the action will have an impact on a particular factor applies to other intensity factors, but not to this one. 40 C.F.R. § 1508.27(b)(2), (b)(4), (b)(5), (b)(8), (b)(9); *see Polselli v. Internal Revenue Serv.*, 598 U.S. 432, 439 (2023) (recognizing the assumption that drafters act intentionally when they include particular language in one section and not another). The agency’s argument that the more limited methods of PDM proposed for use in Wilderness and Wilderness Study Areas will ensure the impact is not significant answers the wrong question; the focus of this factor is not on the degree of the potential impact, but on the unique and special areas that may be impacted. *See Bureau of Ocean Energy Mgmt.*, 36 F.4th at 880 (describing unique and special resources throughout the area in which the proposed action would occur, even though the proposed action would take place some distance from the nearby national park and marine sanctuary).

The EA indicates that PDM will most likely occur in only a subset of Nevada’s Wilderness and Wilderness Study Areas. As explained, it predicts that PDM is “extremely likely” to occur year-round in 507,181 acres of Wilderness and Wilderness Study Areas in Nevada. It also predicts that 5,534,150 acres of Wilderness and Wilderness Study Areas,

about 85% of Nevada’s total, will have a “low,” “extremely low,” or no likelihood of PDM operations.<sup>13</sup>

The expected geographic concentration of Wildlife Services’ PDM activities is relevant to the Section 1508.27(b)(3) intensity factor because Congress designated each of Nevada’s Wilderness and Wilderness Study Areas to protect special or unique characteristics, the preservation of which is supported by an individual management plan. For example, the Mount Moriah Wilderness Area in Nevada, which Wildlife Services predicts has an “extremely high” likelihood of nearly year-round PDM, features a large plateau with a “unique world of subalpine vegetation,” caves that “show evidence of prehistoric habitation,” and a large population of bighorn sheep and mule deer.<sup>14</sup> The Highland Ridge Wilderness Area, adjacent to Great Basin National Park, contains large populations of mule deer, elk, pronghorn antelope, and mountain lions.<sup>15</sup> The Grant Range Wilderness Area hosts over 200 species of native

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<sup>13</sup> The agency predicts a “low” likelihood of PDM for areas where there has been “[h]istorical depredation nearby” but none is expected in the area, and an “extremely low” likelihood where there was “[n]o historical depredation” and none is expected to start. The only Wilderness Areas where the agency anticipates no PDM occurring are those managed by the National Park Service that are therefore outside the scope of the EA.

<sup>14</sup> *Mt. Moriah Wilderness*, Wilderness Connect, <https://wilderness.net/visit-wilderness/?ID=395> [<https://perma.cc/5CQY-TPBP>].

<sup>15</sup> *Highland Ridge Wilderness Area*, Wilderness Connect, <https://wilderness.net/visit-wilderness/?ID=697> [<https://perma.cc/KH7D-GB8W>].



wildflowers, and it is home to raptors, mule deer, and bighorn sheep.<sup>16</sup>

We agree with Appellants that the impacts of PDM in each Wilderness Area or Wilderness Study Area will depend on the type of resources they protect and the relative amount of PDM conducted there. The agency's general discussion of the effects of specific methods proposed for PDM operations in Wilderness Areas and Wilderness Study Areas does not account for this diversity. Indeed, the EA made no effort to analyze any particularized impacts or even to describe the different types of environments protected by Wilderness Areas, much less analyze the expected impacts to those ecosystems. By evaluating only generic effects on Wilderness Areas and Wilderness Study Areas, the EA failed to take a hard look at the varied impacts that are likely to result from the proposed PDM program.<sup>17</sup>

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<sup>16</sup> *Grant Range Wilderness Area*, Wilderness Connect, <https://wilderness.net/visit-wilderness/?ID=216> [<https://perma.cc/M83U-RYBZ>]; *Grant Range Wilderness Area*, Friends of Nevada Wilderness, [https://www.nevadawilderness.org/grant\\_range\\_wilderness](https://www.nevadawilderness.org/grant_range_wilderness) [<https://perma.cc/TZE3-KCKC>].

<sup>17</sup> Appellants relatedly argue that Wildlife Services must prepare an additional NEPA analysis for each Annual Work Plan (AWP) to adequately address site-specific impacts. This argument is premised on the EA's statement that Wildlife Services will review specific PDM activities for consistency with the goals of managing specific Wilderness and Wilderness Study Areas when it develops AWP in coordination with the relevant land management agencies. The record shows that, in the wake of the issuance of the EA, the agency produced AWP that do not include any additional analysis or discussion of consistency with management plans or impacts to the Wilderness Areas or Wilderness Study Areas where Wildlife Services plans to operate. Instead, the

Third, Appellants argue that Wildlife Services failed to adequately address the “degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.” 40 C.F.R. § 1508.27(b)(5). In determining whether to conduct an EIS, NEPA generally requires the agency to “engage with . . . contrary scientific and expert opinion” and uncertainty as part of its duty to “consider all important aspects” of a proposed agency action. *Bark*, 958 F.3d at 871 (faulting an agency for failing to address “substantial body of research” cited in public comments and merely reiterating its “general conclusions” in response). If new, contrary scientific information becomes available, the agency must explain its reasons for disagreeing with it. *See Native Ecosystems Council v. Tidwell*, 599 F.3d 926, 937–38 (9th Cir. 2010) (finding that agency’s reasons for dismissing new scientific study were inadequate).

In their public comments on the draft EA, Appellants provided evidence of scientific uncertainty regarding the efficacy of lethal PDM, including scientific reviews that collected published literature on this topic. Several of the papers Appellants and other commentors cited on efficacy—unlike most of the literature that the draft EA cited—were published in 2016 or later. And at least ten were peer-reviewed.

Without dismissing any of these papers for being biased, flawed, or unscientific, Wildlife Services substantively

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AWPs point the reader back to the EA for that analysis. Based on this record, it is unclear whether the agency is conducting the additional analysis contemplated by the EA. On remand, Wildlife Services must analyze these site-specific impacts without relying on circular or conclusory assertions.

responded to just two of them. The agency explained that the literature it did not consider was either “outside the scope of the EA,” or “did not add to or change the analysis substantively,” or could be described as “opinion pieces and not peer-reviewed literature.” The EA does not specify which category or categories applied to the papers it did not consider or provide any explanation as to why the agency decided that none of them changed its analysis substantively.<sup>18</sup>

The EA responded to only two articles, one of which was the Treves, et al. (2016) literature review. Treves examined decades of published research on lethal PDM and found a lack of rigorous, experimental evidence supporting its efficacy. Treves also identified several studies that concluded that lethal PDM is ineffective and called for suspending lethal PDM until more extensive research is conducted. In response, Wildlife Services countered that the Before/After-Control/Impact (“BACI”) protocol Treves describes as the “gold standard” is difficult to implement in real-world conditions. On this basis, Wildlife Services concluded that the Treves findings did not change its conclusion that it is “fully appropriate” to continue using

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<sup>18</sup> At least two of the articles the agency did not discuss either call for more research in light of the scientific uncertainty surrounding the efficacy of lethal versus non-lethal PDM, or directly criticize the efficacy of lethal PDM. Although these articles are not standalone studies, they do identify at least ten peer-reviewed research papers that question lethal PDM’s efficacy. *Cf. In Def. of Animals*, 751 F.3d at 1069–71 (holding that only two contrary scientific studies were insufficient to show that the effects of a proposed action were “highly uncertain,” where agency based its finding of no significant impact “upon relevant and substantial data”). In addition, two of the peer-reviewed studies cited in the comments present statistical evidence suggesting that lethal PDM may increase depredation of livestock under certain circumstances.

lethal PDM. But the EA does not respond to Treves's *primary* conclusions that non-lethal PDM methods appear to be generally more effective than lethal PDM methods and that lethal PDM methods may be detrimental to livestock in the long term.

The EA discusses and engages in somewhat greater detail with the substantive results of Wielgus & Peebles (2014). This study found that lethal wolf PDM may increase depredation on a statewide scale. The EA observes that subsequent re-analyses of the data produced contrary results and showed that lethal wolf PDM can reduce depredations over a one-year period at smaller spatial scales. Even recognizing that the results of the Wielgus & Peebles study have been questioned, we find the fact that Wildlife Services engaged with the results of only two contrary studies, one of which produced disputed results that may support the agency's position, does not establish that the agency reasonably considered all material aspects of the scientific debate put before it. *See Bark*, 958 F.3d at 871; *350 Mont.*, 50 F.4th at 1263.

Appellants and other commentors relied on more studies than just Treves and Wielgus & Peebles, but the agency failed to explain why those additional studies do not merit consideration or, if they do, why they do not change its analysis substantively. It is not clear whether the results of those studies have been disputed, like Wielgus & Peebles, or whether those studies used the BACI protocol the agency dismisses as impractical. The agency selected some older studies to support its position, and cited internal government audits that demonstrate it follows its own policies, but it did not engage with the contrary, more recent studies. On remand, the agency may be able to justify its decision to continue using lethal PDM in light of the existing data; we

take no position in this scientific debate. But as it stands, the EA does not provide adequate explanations to demonstrate the agency took a hard look at the scientific uncertainty presented to it. *See Bark*, 958 F.3d at 871.

Wildlife Services' reliance on *WildEarth Guardians v. Wehner*, 526 F. Supp. 3d 898 (D. Colo. 2021), an out-of-circuit district court opinion, is misplaced. In *Wehner*, the court, concluding that an EIS was not required, distinguished Wildlife Services' EA for PDM operations in Colorado from Wildlife Services' EA for PDM operations in Idaho that had been at issue in *Western Watersheds Project*. *See* 320 F. Supp. 3d at 1140–46. *Wehner* observed that federal and state agencies in Idaho reacted negatively to the Idaho PDM plan and noted there was no such response from agencies in Colorado. 526 F. Supp. 3d at 911–14 (citing *W. Watersheds Project*, 320 F. Supp. 3d at 1147, 1150).

The district court here distinguished *Western Watersheds Project* on similar grounds, but by focusing on opposition from other federal agencies, the court overlooked the more fundamental concern the District of Idaho expressed in *Western Watersheds Project*: the agency's failure to address material opposing scientific viewpoints, regardless of whether they were raised by the government. 320 F. Supp. 3d at 1148–50. Also, unlike the agency's responses in *Western Watersheds Project*, *id.* at 1149, or *Cascadia Wildlands v. Woodruff*, 151 F. Supp. 3d 1153 (W.D. Wash. 2015), where the agency "summarily dismissed" controversy, *id.* at 1165, the court in *Wehner* emphasized that Wildlife Services in Colorado "discussed opposing viewpoints . . . at length in the EA," 526 F. Supp. 3d 913. Here, the EA does not show that Wildlife Services adequately considered opposing points of view, and its failure to respond to the evidence of uncertainty weighs in

favor of remand. *See, e.g., Native Ecosystems Council*, 599 F.3d at 938 (explaining that the agency failed to engage with results of a scientific study); *Blackwood*, 161 F.3d at 1213 (reasoning that the failure to discuss and consider substantive recommendations from an independent report weighed in favor of finding that agency did not take the requisite “hard look”); *Bureau of Ocean Energy Mgmt.*, 36 F.4th at 871.

Overall, we conclude that the EA does not include a sufficient evaluation of the intensity of the proposed PDM because it fails to adequately analyze the impacts of PDM on public health, unique and sensitive areas, and the scientific uncertainty regarding lethal PDM. *See Blackwood*, 161 F.3d at 1212. The EA’s inadequate analysis of these intensity factors, combined with its inconsistent description of the geographic scope of the proposed PDM program and its insufficient justification for conducting only a statewide environmental assessment, Section III.B.1, *supra*, supports the conclusion that Wildlife Services did not fully inform the public of the proposed agency action, take the required hard look, or provide a convincing statement of reasons for its finding of no significant impact. *See Robertson*, 490 U.S. at 349.

## C

Appellants urge us to vacate the EA and FONSI and to order Wildlife Services to prepare an EIS. Vacatur of the agency action “is the presumptive remedy under the APA,” and we “order remand without vacatur only in ‘limited circumstances.’” *350 Mont.*, 50 F.4th at 1273 (quoting *Pollinator Stewardship Council v. U.S. Env’t Prot. Agency*, 806 F.3d 520, 532 (9th Cir. 2015)). As for Appellants’ request that we direct an EIS, “[p]reparation of an EIS is not

mandated in all cases simply because an agency has prepared a deficient EA or otherwise failed to comply with NEPA.” *Id.* at 1272 (quoting *Ctr. for Biological Diversity*, 538 F.3d at 1225). In cases where there is “uncertainty over whether the proposed project may have a significant impact, including uncertainty caused by . . . an inadequate EA, the court should ordinarily remand for the agency to either prepare a revised EA or reconsider whether an EIS is required.” *Ctr. for Biological Diversity*, 538 F.3d at 1226. Here, we conclude it is appropriate to allow the agency to reconsider whether to prepare a revised EA or a full EIS. Therefore, we vacate the operative EA and FONSI and remand to the district court to enter an order directing the agency to determine whether to prepare a new EA or an EIS. Pursuant to the parties’ 2016 settlement agreement, the agency may continue PDM in other areas in the state relying on older NEPA analyses while the new NEPA analysis is conducted.

The district court’s order is **AFFIRMED IN PART**, **VACATED IN PART**, and the case is **REMANDED** to the district court for further proceedings consistent with this opinion. Each party shall bear their own costs.