

Public Comments Processing, Attn: FWS-R6-ES-2026-0958
U.S. Fish and Wildlife Service
MS: PRB/3W, 5275 Leesburg Pike
Falls Church, VA 22041–3803

June 5, 2026

Re: Endangered and Threatened Wildlife and Plants; Request for Information on Implementation of the Gray Wolf (*Canis Lupus*) Nonessential Experimental Population Rule in Colorado

Submitted electronically to <https://www.regulations.gov>, Docket No. FWS-R6-ES-2026-0958

This comment letter is accompanied by 11 attachments that provide scientific studies and other material cited herein. Those attachments are electronically submitted as separate documents due to file size limitations on regulations.gov.

I. INTRODUCTION

The undersigned conservation organizations welcome the opportunity to submit this response to the U.S. Fish and Wildlife Service’s Request for Information (‘RFI’) regarding the implementation of the Endangered Species Act (‘ESA’) section 10(j) nonessential experimental population rule for gray wolves (*Canis lupus*) in Colorado. The restoration of gray wolves to Colorado is a significant wildlife conservation initiative, and Coloradans have repeatedly expressed support for returning this vital apex predator to its historical range—support that has only increased since the 2020 passage of Proposition 114.¹

Wolves were present across Colorado for millennia before humans extirpated them from the state in the mid-1900s. In the decades since the last wolves were killed in Colorado, the state’s ecosystems became increasingly degraded and ecologically simplified (i.e., less biodiverse). By restoring the species, Colorado is helping restore the wild, natural character of the state’s remarkable landscapes and ecosystems. Wolves also play a role in keeping ungulate herds healthy, including by selectively preying on old, injured, and diseased individuals.

Colorado’s wolf restoration program also advances wolf recovery more broadly. By re-establishing a self-sustaining wolf population in the Southern Rockies, Colorado is helping the species reclaim its historical range. The region also serves as the critical geographical bridge connecting gray wolf populations in the northern Rocky Mountains with Mexican gray wolf

¹ Jesse Paul, *At Least Half of Colorado Voters Support Wolf Reintroduction 2 Years After the Animals Were First Released*, Colo. Sun (Sept. 8, 2025), <https://coloradosun.com/2025/09/08/colorado-wolf-reintroduction-poll/>.

populations in the desert Southwest. Subverting or stalling Colorado’s reintroduction process would impair the genetic connectivity and long-term viability of the species nationwide.

The Service must evaluate the 10(j) rule and Colorado’s implementation of it through the lens of the Service’s core mandate under the ESA: to facilitate and actively advance the recovery of endangered and threatened species. The 10(j) rule was designed to provide administrative flexibility to promote coexistence and ease reintroduction—the role it is currently serving for Colorado’s management of wolves—not as a mechanism to suppress population growth or elevate anti-wolf political pressure.

It is therefore concerning that the Service’s current request for information focuses heavily on the interests of Colorado’s livestock industry rather than wolf conservation. It asks about issues like, for example, the “timeliness, adequacy, and accessibility of compensation,” even though the Service itself notes that compensation is not “authorize[d] and/or govern[ed]” by the 10(j) rule.² To the extent the Service is considering changing the 10(j) rule or any other element of the federal-state management framework, the only appropriate (and legally permissible) changes are those that strengthen protections for wolves in Colorado.

II. BACKGROUND

A. Voters democratically approved Proposition 114.

Colorado’s wolf reintroduction effort started with democracy. In 2020, voters approved Proposition 114, directing Colorado Parks and Wildlife (‘CPW’) to restore a self-sustaining population of gray wolves to the state. This historic ballot measure legally mandated that CPW develop and implement a plan to restore a self-sustaining population of gray wolves to the state. It marked a significant milestone: the first time U.S. voters decided, through direct democracy, to restore a native species to a portion of its historic range.

Detractors frequently attempt to dismiss Proposition 114 as “ballot box biology,” but this rhetoric fundamentally misunderstands the decision that Colorado voters made. That decision—to restore a native species that was deliberately extirpated in the name of human dominion over nature—was a value-based policy choice embracing conservation, stewardship, and humans’ relationship with nature.³ Once the public made that foundational value judgment, the technical and scientific decisions required to implement it—like selecting release sites, choosing how many wolves to release over what periods of time, how to manage wolf-related conflicts, etc.—were properly delegated to the experts at CPW. Thus, Proposition 114’s passage represents a

² 91 Fed. Reg. 17297, 17299 (Apr. 6, 2026).

³ See § 33-2-105.8(1)(a), C.R.S. (“Historically, wolves were an essential part of the wild habitat of Colorado but were exterminated and have been functionally extinct for seventy-five years in the state.”).

legitimate exercise of democracy and reflects Colorado voters' value-based desire to have wolves once again roam the state's natural landscapes.

B. CPW developed a wolf plan over multiple years, with extensive public involvement.

Following Proposition 114's passage, CPW built its wolf program through extensive public engagement. During development of the Colorado Wolf Restoration and Management Plan ('Wolf Plan'), CPW convened both an expert Technical Working Group, which met 14 times between June 2021 and August 2022, and a Stakeholder Advisory Group of diverse perspectives, which met 15 times during that same period.⁴ CPW used the Keystone Policy Center to facilitate its public process, engaging approximately 3,400 participants through 47 meetings and an online comment form, including public open houses, geographic focus groups, virtual focus groups, tribal consultations, and town halls.⁵

Incorporating that engagement, CPW prepared a draft management plan and released it for public review in December 2022; CPW then held a series of public meetings for the public to present concerns and comments on the draft plan; the CPW Commission recommended edits based on that feedback; and CPW incorporated that feedback and adopted its final plan on May 3, 2023.⁶ The review and engagement process leading up to the final plan spanned two-and-a-half years, with participation from all corners of the state and Coloradans of all stripes.

C. CPW successfully reintroduced wolves in 2023–24 and 2024–25, with federal support and despite obstruction from anti-wolf special interest groups.

The Service helped facilitate the early phase of Colorado's restoration program. Service personnel served on the Technical Working Group that helped formulate the Wolf Plan,⁷ and, to facilitate "management flexibility" for CPW,⁸ the Service promulgated the Colorado gray wolf 10(j) rule, creating a nonessential experimental population designation for wolves in the state.⁹ The 10(j) rule was accompanied by an environmental impact statement issued under the National Environmental Policy Act, evaluating the impacts of Colorado's wolf restoration effort and the 10(j) rule.¹⁰

Shortly before the first releases were set to take place, anti-wolf special interest groups filed a last-minute federal lawsuit in December 2023 seeking to halt those releases. The court denied the

⁴ Colo. Parks & Wildlife, *Colorado Wolf Restoration and Management Plan 3* (2023) [hereinafter *Wolf Plan*].

⁵ *Id.*

⁶ See Colo. Parks & Wildlife, *Colorado Gray Wolf Annual Report 1* (2024) [hereinafter *2024 Annual Report*].

⁷ *Wolf Plan*, *supra* note 4, at App'x B-11.

⁸ *Wolf Plan*, *supra* note 4, at ii.

⁹ 88 Fed. Reg. 77014 (Nov. 8, 2023).

¹⁰ 88 Fed. Reg. 64399 (Sept. 19, 2023).

requested temporary restraining order on December 15, 2023, clearing the way for Colorado to proceed with reintroduction.¹¹ In allowing releases to proceed, the court found, among other things, that wolf reintroduction would not irreparably harm livestock operators, and that halting the reintroduction would impair the public interest.¹² Thus, the first round of releases were set to move forward only after the Service reviewed the overarching management framework under both the ESA and NEPA and after a court rejected a legal challenge to the reintroduction.

From December 18–22, 2023, CPW completed the first phase of voter-mandated wolf restoration by releasing 10 gray wolves into Grand and Summit Counties.¹³ Those wolves were translocated from Oregon through a one-year agreement, publicly announced in October 2023, with the Oregon Department of Fish and Wildlife.¹⁴

Through 2024, the program shifted from initial release to intensive monitoring and early signs of establishment, and CPW continued to make that process visible to the public. CPW began publishing monthly collared gray wolf activity maps to show where collared wolves had been over the preceding month, to inform recreationists, community members, and livestock operators about wolf movements on the landscape.¹⁵ CPW also increased its efforts to “inform local area producers when wolves are spending time in an area and work to establish site assessments to identify and deploy deterrence measures.”¹⁶ CPW’s first annual report documented substantial communications and education efforts, including 32 wolf-program newsletters, more than 5,330 subscribers, and a stated goal of providing “the latest information and news about wolves in Colorado, including available educational resources, wolf movement updates, wolf biology facts, and more.”¹⁷

Between the first and second rounds of releases, one breeding pair formed and produced a litter of five pups—the Copper Creek pack—but the nascent population faced challenges too. Due to livestock predation issues, CPW captured the Copper Creek pack, except for one pup that remained in the wild.¹⁸ The breeding male, 2309-OR, died in captivity from an illegal gunshot

¹¹ *Gunnison Cnty. Stockgrowers Ass’n, Inc. v. U.S. Fish & Wildlife Serv.*, 707 F. Supp. 3d 1056, at *1068 (D. Colo. 2023).

¹² *Id.* at 1065–8. (noting that the court later rejected the bulk of a separate challenge to the reintroduction effort, denying three out of four claims (with the fourth claim currently pending)); *see also Colo. Conservation All. v. U.S. Fish & Wildlife Serv.*, No. 23-cv-03294-RMR, 2024 WL 4457870, at *10 (D. Colo. Oct. 10, 2024).

¹³ *Id.* at 1–3.

¹⁴ *Id.* at 2.

¹⁵ Colo. Parks & Wildlife, Wolf Program Update 4 (Jan. 2025), https://cpw.state.co.us/sites/default/files/dam/suq60mzxk2/item.13a_wolf_program_update.pdf [hereinafter *CPW 2025 Update*].

¹⁶ *Id.*

¹⁷ *2024 Annual Report*, *supra* note 6, at 9.

¹⁸ Colo. Parks & Wildlife, *2024-2025 Colorado Gray Wolf Annual Report 1* (2025) [hereinafter *2025 Annual Report*].

wound sustained before capture.¹⁹ Another wolf, an uncollared adult, was killed in a trap the same year.²⁰ Including the remaining captive Copper Creek members, which were ultimately re-released into the wild, 15 wolves were present in Colorado at the end of 2024.²¹ The first year of post-reintroduction management thus showed modest progress toward a self-sustaining population while underscoring the serious risks that wolves face in the state, including illegal killing by humans.

Before a second round of releases, anti-wolf livestock groups again tried to thwart Colorado’s restoration efforts through a petition to delay further releases until specified conflict-mitigation measures were in place.²² CPW’s then-Director Jeff Davis formally recommended that the petition be denied in a memorandum dated December 21, 2024, explaining that CPW already adopted all of the requested changes.²³ The memo also explained that bringing in additional wolves was biologically important to encourage pairing, breeding, and pack formation.²⁴ And it explained that halting releases would frustrate the statutory goal of establishing a self-sustaining wolf population while likely prolonging conflict associated with widely roaming, unpaired wolves.²⁵ The Commission denied the petition at its January 8–9, 2025 “for the reasons stated in the Director’s Recommendation.”²⁶ The petition process illustrated CPW’s willingness to accommodate the livestock lobby—voluntarily adopting their requested management changes outside of the petition process—and, just as importantly, reflected that continued releases are necessary to achieve restoration and improve management by helping wolves form more stable territories and packs.

The second round of reintroductions then went forward in January 2025. CPW released 15 wolves from British Columbia under a source agreement announced on September 12, 2024, bringing the total number of translocated wolves to 25 across the first two release efforts.²⁷ CPW explained that the second release was necessary not just to satisfy the plan’s numeric framework, but to promote pairing, breeding, pack formation, more predictable territories—and ultimately

¹⁹ *Id.* at 3.

²⁰ *Id.*

²¹ *Id.*

²² Middle Park Stockgrowers Ass’n, Citizen Petition for Rulemaking to the Colo. Parks & Wildlife Comm’n (Sept. 27, 2024), <https://cpw.widen.net/s/nwcrhdgsrb/haltwolfreintroductionspetitionwebsite>.

²³ Memorandum from Jeff Davis, Dir., Colo. Parks & Wildlife, to Colo. Parks & Wildlife Comm’n, regarding Division Recommendation to Deny Petition to Halt Wolf Reintroduction (Dec. 21, 2024), <https://cpw.widen.net/s/nwcrhdgsrb/haltwolfreintroductionspetitionwebsite>.

²⁴ *Id.*

²⁵ *Id.*

²⁶ CPW Commission, January 8-9, 2025 Meeting Minutes at 2, https://cpw.state.co.us/sites/default/files/dam/3edbf121/january_meeting_minutes.pdf.

²⁷ 2025 Annual Report, *supra* note 18, at 2–3.

more efficient conflict minimization—because established packs are easier to monitor and manage than a handful of wide-ranging individuals.²⁸

D. A third round of releases did not go forward as planned, to the detriment of Colorado’s wolf population.

Livestock groups again sought to derail Colorado’s democratically adopted wolf restoration effort in 2025. CPW signed a multi-year agreement with the British Columbia Ministry of Waters, Lands and Resource Stewardship in summer 2025 for continued partnership on wolf capture and translocation to Colorado, with a contract in place to capture up to 15 wolves in January 2026. But livestock industry groups, along with Colorado gubernatorial candidate Greg Lopez, began claiming publicly that translocating wolves from British Columbia would violate the 10(j) rule²⁹—a claim that, as discussed below, is false.³⁰

The Service, newly under the leadership of President Trump and former Wyoming Game & Fish Director Brian Nesvik, sent Colorado a letter in October 2025 ordering CPW to “cease and desist” its efforts to obtain wolves from British Columbia.³¹ On December 18, 2025, Nesvik sent another letter demanding all records of wolf reintroduction within 30 days and threatening a federal takeover of Colorado’s program if CPW failed to comply.³² CPW publicly disagreed with the Service’s erroneous legal interpretation of the 10(j) rule as prohibiting translocations from British Columbia and complied with the Service’s request for records but ultimately did not proceed with releasing additional wolves in the winter of 2025–26.³³

In its latest annual report, CPW explained that the missed year of additional releases was at odds with the Wolf Plan, which called for releasing 10 to 15 wolves annually for 3 to 5 years.³⁴ It also found that “[i]t will likely be critical for the establishment of a self-sustaining wolf population in Colorado to have substantial translocation efforts (10-15 animals) for at least one, if not more, in additional years.”³⁵ This observation is underscored by the ten mortalities documented in that report.³⁶ Moreover, of those ten mortalities, six were from “anthropogenic

²⁸ *CPW 2025 Update*, *supra* note 15, at 8.

²⁹ Tracy Ross, *Greg Lopez Says Colorado Parks and Wildlife Could Face “Enforcement Action” for Endangered Species Act Violations*, *Colo. Sun* (Nov. 14, 2025), <https://coloradosun.com/2025/11/14/greg-lopez-says-cpw-could-face-enforcement-violations-over-wolves/>.

³⁰ Section III.C.1.b, below.

³¹ *Colo. Parks & Wildlife, 2025-2026 Colorado Gray Wolf Annual Report 2* (2026) [hereinafter *2026 Annual Report*].

³² Miles Blumhart, *Federal Officials Threaten to Take Over Wolf Management from Colorado*, *Fort Collins Coloradoan* (Jan. 3, 2026), <https://www.coloradoan.com/story/news/2026/01/03/federal-officials-threaten-to-take-over-wolf-management-from-colorado/88007132007/>.

³³ *2026 Annual Report*, *supra* note 31, at 2.

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at 4.

causes” and three more were “still under investigation,” leaving just one mortality known to have been by “natural causes.”³⁷ Those numbers illustrate that, in addition to benefitting from more releases, Colorado’s wolves require heightened protection.

III. DISCUSSION

A. CPW’s management to date has advanced wolf recovery while minimizing harm to livestock operators.

In the relatively short period since initial releases in December 2023, and despite significant obstruction from anti-wolf organizations, CPW has made progress toward its core legal obligation: establishing a self-sustaining wolf population in Colorado. It has simultaneously deployed a suite of tools to minimize conflict with livestock operators and other stakeholders. While some important improvements to its management are warranted,³⁸ CPW has generally approached wolf restoration in a deliberate, adaptive, transparent, and science-based manner.

1. CPW has prioritized transparency and communication with the public throughout the process.

Contrary to claims by some anti-wolf groups, CPW did not approach the initial rounds of releases as a hurried surprise. Rather, as discussed above, it spent nearly three years building and publicly vetting the release framework and management plan through statewide hearings, public open houses, focus groups, tribal consultations, online comment opportunities, and Commission meetings.³⁹ The publicly adopted plan disclosed the core operational features of the first release before any wolves were moved: CPW would release 10 to 15 wolves annually over three to five years, wolves would be released in one of two identified zones west of the Continental Divide with 60-mile buffers from neighboring-state and tribal borders, and all released wolves would be equipped with GPS collars for post-release monitoring.⁴⁰

Throughout the process, CPW has also maintained public-facing wolf webpages, newsletters, educational materials, and media updates. These resources explained where wolves would come from, when releases would occur, how release areas would be constrained, and what conflict-minimization tools would accompany restoration, thereby giving livestock operators and local

³⁷ *Id.* One of the three deaths under investigation was later confirmed to be human-caused: a rancher fatally shot the breeding female of the King Mountain pack. Miles Blumhardt, *Exclusive: Colorado Rancher Says Employee Shot Wolf Pack Mother*, Fort Collins Coloradoan (June 1, 2026), <https://www.coloradoan.com/story/news/local/colorado/2026/06/01/colorado-rancher-claims-ranch-hand-killed-wolf-pack-mother/90356322007/>.

³⁸ See Section III.B, below.

³⁹ Section II.B, above; *Wolf Plan*, *supra* note 4, at 3.

⁴⁰ *Wolf Plan*, *supra* note 4, at ii, 20–22.

leaders a continuing source of pre- and post-release information.⁴¹ For example, CPW launched its Gray Wolf Reintroduction e-newsletter in March 2021, and by the 2023–2024 reporting year had issued 32 newsletters to more than 5,330 subscribers, with the stated purpose of providing the latest information and news about wolves in Colorado, including educational resources, wolf movement updates, wolf biology facts, and related implementation information.⁴²

As CPW prepared for a second release season, the agency further enhanced transparency with livestock operators and West Slope communities. CPW implemented a stakeholder communications plan for the 2024–25 release season and held community meetings throughout November and December in counties where releases were possible.⁴³ CPW also began conducting site assessments to help prevent conflict, and it regularly informed local operators when wolves were spending time in an area.⁴⁴ In December 2024, CPW and the Colorado Department of Agriculture announced an expanded Livestock Conflict Minimization Program, including free site assessments, additional wildlife-damage staff, and “multiple and ongoing” Western Slope conflict-minimization meetings through which 22 operators had signed up for site assessments since October.⁴⁵

CPW has continued to communicate transparently with the public during implementation of the restoration effort. In the 2025–2026 reporting cycle, for example, CPW issued 12 monthly newsletters to over 5,800 subscribers, with click rates above 35 percent.⁴⁶ In June 2025, CPW also hired a public information officer dedicated specifically to carnivores, and the agency has continued to publish annual reports, press releases, social media posts, blogs, educational videos, lesson plans, public presentations, and its monthly collared-wolf activity maps.⁴⁷

2. CPW has successfully implemented many forms of nonlethal management.

CPW’s Wolf Plan appropriately requires that nonlethal techniques be encouraged and implemented as a first line of defense whenever possible, with lethal management generally not serving as the initial response to conflict.⁴⁸ That requirement promotes establishment of a self-

⁴¹ 2024 Annual Report, *supra* note 6, at 9; *Wolf Plan*, *supra* note 4, at 40–41; *Bringing Wolves Back to Colorado*, Colo. Parks & Wildlife, <https://cpw.state.co.us/bringing-wolves-back-colorado> (last visited May 30, 2026).

⁴² 2024 Annual Report, *supra* note 6, at 9.

⁴³ *CPW 2025 Update*, *supra* note 15, at 9.

⁴⁴ *Id.*, at 4.

⁴⁵ Press Release, Colo. Dep’t of Agric., *CPW and CDA Prepare for 2025 Gray Wolf Releases with Improved Livestock Conflict Minimization Program* (Dec. 9, 2024), <https://ag.colorado.gov/press-release/cpw-and-cda-prepare-for-2025-gray-wolf-releases-with-improved-livestock-conflict>.

⁴⁶ 2026 Annual Report, *supra* note 31, at 10.

⁴⁷ *Id.*

⁴⁸ *Wolf Plan*, *supra* note 4, at ii, 7–8, 12–13.

sustaining population and aligns with the scientific evidence that lethal control is, at best, an incomplete tool for reducing livestock losses.⁴⁹

The emphasis on non-lethal methods is also effective: confirmed wolf-livestock conflict remains low in Colorado thanks in part to CPW's non-lethal management programs. For example, in each of the last three years, no livestock have been lost to wolves during calving season where fladry was deployed.⁵⁰

One of CPW's most important and effective tools is its range rider program. Range riders work because wolves tend to avoid humans, and range riders can reduce encounters, identify predations more quickly, and move animals away from risky areas.⁵¹ In May 2025, CPW and the Colorado Department of Agriculture ('CDA') announced that the Colorado Range Rider Program was fully staffed and ready for deployment, with 11 contract riders hired by CPW and two CDA riders available to work across multiple western Colorado counties during the on-range season.⁵² In 2025 alone, CPW's 11 riders rode 14,800 miles and 4,324 hours across eight counties, with additional riding conducted by CDA riders and non-governmental organization ('NGO') riders.⁵³

CPW has also built an operator-specific site assessment model rather than relying on one-size-fits-all prescriptions. In the 2023–2024 reporting period, CPW received 24 requests for nonlethal tool deployment, and the agency explained that site assessments were conducted with the landowner to evaluate the operation, identify needed materials, and develop a deployment timeline.⁵⁴ By December 2024, CPW and CDA had formalized and expanded the site assessment process, emphasizing that site assessments are free, collaborative, and intended to identify the most appropriate nonlethal measures for each operation.⁵⁵ The program has since scaled substantially, with 282 site assessments completed since 2022.⁵⁶

⁴⁹ Section III.B.1, below; *Wolf Plan*, *supra* note 4, at 12–13.

⁵⁰ *2024 Annual Report*, *supra* note 6, at 5; *2025 Annual Report*, *supra* note 18, at 6; *2026 Annual Report*, *supra* note 31, at 6.

⁵¹ *Wolf Plan*, *supra* note 4, at 11.

⁵² Press Release, Colo. Dep't of Agric., *Colorado Parks and Wildlife and Colorado Department of Agriculture Range Rider Program Is Fully Staffed, Trained and Deployed to Reduce Wolf Conflicts* (May 13, 2025), <https://ag.colorado.gov/press-release/colorado-parks-and-wildlife-and-colorado-department-of-agriculture-range-rider>.

⁵³ *2026 Annual Report*, *supra* note 31, at 7.

⁵⁴ *2024 Annual Report*, *supra* note 6, at 4–5.

⁵⁵ Colo. Dep't of Agric., *supra* note 45.

⁵⁶ *2026 Annual Report*, *supra* note 31, at 6.

CPW has also shown a willingness to test emerging tools rather than treating the existing toolkit as fixed. For example, CPW is engaged in ongoing research on conflict-minimization techniques like drone hazing and other technology-assisted approaches.⁵⁷

Importantly, supporters of Colorado’s wolf restoration program provide much of the funding for these non-lethal tools. In the 2025–26 reporting timeframe, the “Born to Be Wild” license plate—which allows purchasers to show their support for wolves in Colorado—raised over \$1.8 million with over 28,000 license plates in circulation.⁵⁸ Pro-wolf NGOs have contributed additional funds as well.⁵⁹

3. Like elsewhere, wolves in Colorado are having minimal effect on livestock.

Livestock losses to wolves are rare in every area in which they live.⁶⁰ Typically, in other states with large wolf populations, less than half a percent of livestock operators experience any wolf predations; and, of those that do, approximately 60 percent experience only a single predation event.⁶¹

Like elsewhere, the effects of wolves on livestock in Colorado are insignificant at the statewide or industry-wide level, even though impacts to a small number of operators have been more significant. In the first three reporting years after reintroduction, CPW has confirmed 71 livestock predations: three in 2023–24; 25 in 2024–25; and 43 in 2025–26.⁶² Colorado paid fair market compensation for all of those predations, totaling \$87,907.14.⁶³ Livestock operators have received additional, significant payments—totaling over a million dollars—for so-called indirect losses, i.e., missing animals and “production losses” blamed on wolves, that include, for example, over \$350,000 paid in 2025–26 alone for “[d]ecreased [w]eights.”⁶⁴ However, as discussed below,⁶⁵ the standard of proof for claimed indirect losses is low, making it an unreliable metric for assessing wolves’ true effect on livestock.

⁵⁷ *Id.* at 9.

⁵⁸ *Id.* at 7.

⁵⁹ *Id.*

⁶⁰ Peter Kareiva et al., *A New Era of Wolf Management Demands Better Data and a More Inclusive Process*, 4 *Conservation Sci. & Prac.* e12821 (2022); Humane Soc’y of the U.S., *Government Data Confirm That Wolves Have a Negligible Effect on U.S. Cattle & Sheep Industries* (2019), https://www.humanesociety.org/sites/default/files/docs/HSUS-Wolf-Livestock-6.Mar_.19Final.pdf.

⁶¹ *Wolf Plan*, *supra* note 4, at 11–12.

⁶² *2024 Annual Report*, *supra* note 6, at 6; *2025 Annual Report*, *supra* note 18, at 7; *2026 Annual Report*, *supra* note 31, at 7.

⁶³ *2024 Annual Report*, *supra* note 6, at 6; *2025 Annual Report*, *supra* note 18, at 7; *2026 Annual Report*, *supra* note 31, at 7.

⁶⁴ *2026 Annual Report*, *supra* note 31, at 7.

⁶⁵ Section III.B.3, below.

Most recently, in Colorado, CPW staff confirmed that wolves killed 42 livestock animals (19 cattle and 23 sheep), as well as 1 working dog during the 2025–2026 Biological Year (April 1, 2025 – March 31, 2026).⁶⁶ For perspective, there were 1.42 million cattle (excluding milk cows and cattle on feed), and 410,000 sheep in the state during the same time period.⁶⁷ In other words, CPW confirmed that wolves were responsible for the loss of 0.001% of cattle and 0.006% of sheep in the state. During a July 7, 2025 special meeting of the Parks and Wildlife Commission in Colorado, CPW then-Director Jeff Davis reminded commissioners that most of the wolves in Colorado are not harming livestock.⁶⁸

In short, these small, albeit unevenly distributed, effects present a manageable coexistence problem—not a statewide livestock crisis—especially where CPW is actively funding deterrents, staffing range riders, and paying compensation.

4. Wolves are having no observed effect on wild ungulate populations in Colorado and keep ungulate herds healthy in jurisdictions where they live.

As CPW itself has explained, wolf-ungulate interactions are complex, highly context-dependent, and influenced by numerous variables including habitat quality, winter severity, disease, hunting, and other predators.⁶⁹ CPW has not found any effect from wolves on wild ungulates in Colorado to date. In its first annual report, CPW stated that there had been no formal examination of wolf predation on wild ungulates, though it had overlapping elk and deer monitoring areas that would continue into future years.⁷⁰ In the next report, CPW identified only two opportunistically documented predation events within its monitoring areas, including a CWD-positive mule deer buck, and noted that it was premature to draw any conclusions from those events.⁷¹ The most recent report likewise notes only opportunistic observation of wolf-ungulate predations, without finding any effect to date.⁷²

The scientific consensus for the last several decades has generally found that coursing predators like wolves and coyotes help regulate prey populations and make them more robust,⁷³ including

⁶⁶ *Wolf Plan*, *supra* note 4, at 10-11.

⁶⁷ U.S. Dep't of Agric., Nat'l Agric. Stat. Serv., 2025 State Agriculture Overview: Colorado (2026), https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=COLORADO.

⁶⁸ See Colo. Parks & Wildlife Comm'n, Minutes of the Parks and Wildlife Commission Meeting (July 17–18, 2025), <https://cpw.state.co.us/committees/colorado-parks-and-wildlife-commission/meetings/parks-and-wildlife-commission-meeting-42>.

⁶⁹ *Wolf Plan*, *supra* note 4, at 13–15.

⁷⁰ *2024 Annual Report*, *supra* note 6, at 4.

⁷¹ *2025 Annual Report*, *supra* note 18, at 5.

⁷² *2026 Annual Report*, *supra* note 31, at 6.

⁷³ Ramana Callan et al., *Recolonizing Wolves Trigger a Trophic Cascade in Wisconsin (USA)*, 101 *J. Ecology* 837 (2013); A. Starker Leopold et al., *Predator and Rodent Control in the United States*, 29 *Trans. N. Am. Wildlife & Nat. Res. Conf.* 27 (1964); Kenneth A. Logan & Linda L. Sweanor, *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore* (2001); Carl D. Mitchell et al., *Population Density of Dall's Sheep in Alaska: Effects of Predator Harvest?*, 60 *Mammal Rsch.* 21 (2015); Adolph Murie, Nat'l Park Serv., U.S. Dep't

removing sick and weak animals that compete with conspecifics for food but would die of other natural causes anyway.⁷⁴ On the other hand, killing wolves is an unreliable way to increase the abundance of elk and other ungulates.⁷⁵ For example, Treves et al. (2024) in their review article found that killing wolves generally will not increase ungulate abundance, stating “Collectively, these data and the scientific studies suggest that the positive effects of killing wolves on wild ungulate abundance are slight, may be negative in reality, and remain unpredictable.”⁷⁶ Conversely, Trump et al. (2022) found that despite increasing numbers of grizzly bears, cougars, and wolves, elk hunters in Alberta killed more elk over time and their success rate increased.⁷⁷

Wolves are very good at identifying vulnerable prey, and tend to target individuals that are old, young, sick, or otherwise weakened.⁷⁸ They prefer to prey upon deer and elk that are already in poor health or otherwise compromised. Wolves and other native carnivores may also play a role in suppressing and limiting the prevalence of disease in prey species, including chronic wasting disease (CWD), an epidemic plaguing cervids that continues to spread across North America, including Colorado.⁷⁹ Wolf predation may limit or even prevent transmission of CWD and other diseases by reducing host densities and contact rates or by lowering the total number of infected individuals in a host population.⁸⁰

Studies show that weather, disease, and habitat play a much greater role in determining deer and other ungulate population sizes than predation.⁸¹ Killing native carnivores like wolves fails

of the Interior, Ecology of the Coyote in the Yellowstone (1940); Barbara L. Peckarsky et al., *Revisiting the Classics: Considering Nonconsumptive Effects in Textbook Examples of Predator–Prey Interactions*, 89 Ecology 2416 (2008).

⁷⁴ Caroline E. Krumm et al., *Mountain Lions Prey Selectively on Prion-Infected Mule Deer*, 6 Biol. Letters 209 (2009).

⁷⁵ Chad J. Bishop et al., *Effect of Enhanced Nutrition on Mule Deer Population Rate of Change*, 172 Wildlife Monographs 1 (2009); Mark A. Hurley et al., *Demographic Response of Mule Deer to Experimental Reduction of Coyotes and Mountain Lions in Southeastern Idaho*, 178 Wildlife Monographs 1 (2011);

Mitchell et al., *supra* note 73; Arnaud Mosnier et al., *Extensive Predator Space Use Can Limit the Efficacy of a Control Program*, 72 J. Wildlife Mgmt. 483 (2008).

⁷⁶ Adrian Treves et al., *Evaluating Fact Claims Accompanying Policies to Liberalize the Killing of Wolves*, in *Wildlife Conservation & Management in the 21st Century: Issues, Solutions, and New Concepts* 159 (G. Proulx ed., 2024).

⁷⁷ Tyler Trump et al., *Sustainable Elk Harvests in Alberta with Increasing Predator Populations*, 17 PLoS ONE, no. 10, e0269407 (2022).

⁷⁸ See Douglas W. Smith et al., *Yellowstone after Wolves*, 53 BioScience 330 (2003).

⁷⁹ Ellen E. Brandell et al., *Examination of the Interaction Between Age-Specific Predation and Chronic Disease in the Greater Yellowstone Ecosystem*, 91 J. Animal Ecology 1373 (2022); N. Thompson Hobbs, *A Model Analysis of Effects of Wolf Predation on Prevalence of Chronic Wasting Disease in Elk Populations of Rocky Mountain National Park* (2006) (report submitted to the National Park Service); Margaret A. Wild et al., *The Role of Predation in Disease Control: A Comparison of Selective and Nonselective Removal on Prion Disease Dynamics in Deer*, 47 J. Wildlife Diseases 78 (2011).

⁸⁰ Wild et al., *supra* note 79.

⁸¹ Tavis D. Forrester & Heiko U. Wittmer, *A Review of the Population Dynamics of Mule Deer and Black-Tailed Deer* *Odocoileus hemionus* in North America, 43 Mammal Rev. 292 (2013); Kevin L. Monteith et al., *Life-*

to address the underlying environmental issues—such as habitat loss, drought, loss of migration corridors, human growth, oil and gas exploration and inadequate nutrition—that harm prey populations such as deer and elk.⁸²

Mule deer. The key to mule deer survival is access to adequate nutrition and protecting breeding females, not killing mule deer predators.⁸³ Recent studies, including those by CPW biologists, have demonstrated that killing predators had no beneficial effect for mule deer.⁸⁴ If predators had been absent, the deer would have died from some other cause of mortality.⁸⁵ With successful wolf restoration, mountain lion, coyote and possibly bear populations could decline.⁸⁶

In their long-term Colorado-based study, Bishop et al. (2009) determined that if deer had access to adequate nutrition, neither mountain lions nor coyotes negatively affected their populations.⁸⁷ They also suggest that mountain lions selected for deer that had poor body condition.⁸⁸ As stated above, wolves are also very good at identifying vulnerable prey.⁸⁹ Managing winter range for deer and reducing weeds and reseeding can greatly benefit mule deer.⁹⁰

Wolves' effect on deer populations—and associated hunter harvest—is minimal in comparison to deer habitat and nutrition. As one set of prominent wolf-ungulate researchers observed regarding the Great Lakes ecosystem, “wolf populations and deer hunter success are both driven by deer populations,” not the other way around.⁹¹

History Characteristics of Mule Deer: Effects of Nutrition in a Variable Environment, 186 Wildlife Monographs 1 (2014).

⁸² Forrester & Wittmer, *supra* note 81; Monteith et al., *supra* note 81.

⁸³ Forrester & Wittmer, *supra* note 81; Monteith et al., *supra* note 81; Becky M. Pierce et al., *Top-Down Versus Bottom-Up Forcing: Evidence from Mountain Lions and Mule Deer*, 93 J. Mammalogy 977-88 (2012).

⁸⁴ Bishop et al., *supra* note 75, at 1-28; Forrester & Wittmer, *supra* note 81; R. Bruce Gill et al., *Declining Mule Deer Populations in Colorado: Reasons and Responses* (1999) (a report to the Colorado Legislature); Gary C. White et al., *Survival of Mule Deer in Northwest Colorado*, 51 J. Wildlife Mgmt. 852 (1987); Hurley et al., *supra* note 75.

⁸⁵ Monteith et al., *supra* note 81.

⁸⁶ Robert Crabtree & Jennifer Sheldon, *Coyotes and Canid Coexistence in Yellowstone*, in *Carnivores in Ecosystems: The Yellowstone Experience* 127 (Tim W. Clark et al. eds., 1999); L. Mark Elbroch et al., *Attraction-Repulsion Among Top Predators Following Reintroduction Efforts*, 86 Mammalian Biol. 66 (2017); Patrick E. Lendrum et al., *Home Range Characteristics of a Subordinate Predator: Selection for Refugia or Hunt Opportunity?*, 294 J. Zoology 58 (2014).

⁸⁷ Bishop et al., *supra* note 75, at 1-28.

⁸⁸ *Id.*

⁸⁹ Smith et al., *supra* note 78.

⁹⁰ Eric J. Bergman et al., *Habitat Management Influences Overwinter Survival of Mule Deer Fawns in Colorado*, 78 J. Wildlife Mgmt. 448 (2014).

⁹¹ Thomas Gable et al., Op-Ed, *Counterpoint: Anti-Wolf Column Preyed on Ignorance*, Minn. Star Trib. (Nov. 30, 2023), <https://www.startribune.com/counterpoint-anti-wolf-column-preyed-on-ignorance/600323560>; see also, e.g., Thomas Gable et al., *Wolf Predation on White-Tailed Deer Before, During, and After a Historically Mild*

Elk. Elk hunting numbers in states with established wolf populations remain high. Last October, the Idaho Department of Fish and Game (IDFG) issued a press release that stated, “Fish and Game biologists believe the statewide elk population is healthy and relatively stable.”⁹² The 10-year average for elk hunting is historically high, compared with the long-term average.⁹³ Idaho’s wolf management plan even states that, “A key consideration when examining kill rates [of ungulates by wolves] is that a high kill rate does not necessarily suggest that predators are having a large influence on prey populations and, in fact can indicate that prey populations are abundant and at high densities.”⁹⁴ CPW boasts that Colorado has the planet’s most abundant elk population: “At over 280,000 animals, Colorado’s elk population is the largest in the world.”⁹⁵

While many have blamed reintroduced wolves for elk population declines in northern Yellowstone National Park, wolves’ true effect has proven difficult to determine, whereas human hunting pressure and climatic factors were likely significant causes of population declines.⁹⁶ In the 1970s and 1980s, the elk population north of Yellowstone was unsustainably large, and Montana sponsored culling efforts to cut the population. Then several harsh weather events occurred, including droughts.⁹⁷ The elk herd plunged dramatically beginning in December 1994, approximately three months *before* the first set of wolves were reintroduced to the park.⁹⁸ Another extreme drought from 1998 to 2005 reduced the amount of forage available to elk—just after wolves had been reintroduced into the ecosystem in 1995.⁹⁹

Other studies show that as winter severity increases, elk vulnerability to wolves also increases, reinforcing the idea that weather may influence elk population size more than wolves.¹⁰⁰ A reasonable summary of the long-term effect of wolves on elk herds is that they most likely hold populations at moderate, sustainable levels, which mediates mortality from starvation,

Winter in Northern Minnesota, 14 *Ecology & Evolution* e70562 (2024), <https://doi.org/10.1002/ece3.70562>; Voyageurs Wolf Project, *Wolves, Deer, and Deer Hunting in Northeastern Minnesota: The Data* (2025), <https://www.voyageurswolfproject.org/wolves-deer-hunting-data>.

⁹² *A Quick and Dirty Guide to Elk Hunting*, Idaho Dep’t of Fish & Game (Oct. 16, 2025), <https://idfg.idaho.gov/article/quick-and-dirty-guide-elk-hunting-year>.

⁹³ *Id.*

⁹⁴ Idaho Dep’t of Fish & Game, *Idaho Gray Wolf Management Plan, 2023–2028*, at 23 (2023), <https://idfg.idaho.gov/sites/default/files/idaho-gray-wolf-management-plan-2023-2028.pdf>.

⁹⁵ Colo. Parks & Wildlife, *Rocky Mountain Elk*, <https://cpw.state.co.us/species/elk> (last visited June 3, 2026).

⁹⁶ John A. Vucetich, Douglas W. Smith & Daniel R. Stahler, *Influence of Harvest, Climate and Wolf Predation on Yellowstone Elk, 1961–2004*, 111 *Oikos* 259 (2005).

⁹⁷ Gregory J. Wright et al., *Selection of Northern Yellowstone Elk by Gray Wolves and Hunters*, 70 *J. Wildlife Mgmt.* 1070 (2006).

⁹⁸ Daniel MacNulty et al., *The Challenge of Understanding Northern Yellowstone Elk Dynamics after Wolf Reintroduction*, *Yellowstone Sci.* (updated Sept. 27, 2024), <https://www.nps.gov/yell/learn/ys-24-1-the-challenge-of-understanding-northern-yellowstone-elk-dynamics-after-wolf-reintroduction.htm>.

⁹⁹ Shannon M. Barber-Meyer et al., *Elk Calf Survival and Mortality Following Wolf Restoration to Yellowstone National Park*, 169 *Wildlife Monographs* 1 (2008).

¹⁰⁰ Smith et al., *supra* note 78; E.J. Bergman et al., *Assessment of Prey Vulnerability Through Analysis of Wolf Movements and Kill Sites*, 16 *Ecological Applications* 273 (2006).

weather and other stochastic events.¹⁰¹ When large elk populations experience stochastic weather events such as severe winters, elk may concentrate on lower-elevation private lands, potentially leading to more competition with domestic cattle and agricultural interests, as we witnessed in parts of Colorado after a particularly snowy 2022–2023 winter.¹⁰² However, subsequent mild winters allowed several herds to rebound rapidly to management objectives.¹⁰³

Wolves typically avoid healthy, prime-aged, adult elk, particularly prime-aged females, when selecting prey.¹⁰⁴ Instead, wolves select for calves and weakened or senescent adult elk, meaning that prey selection for wolves is “primarily driven by intrinsic differences in prey vulnerability and the predators’ interest to minimize the risk of injury, as opposed to maximizing intake rate.”¹⁰⁵ Wolves tend to target vulnerable prey even when prime-aged animals are available, while human hunters tend to kill prime-aged adult elk.¹⁰⁶

A broad-scale study of elk populations over 11 years and across seven states and three ecotypes across the western U.S. found that forage productivity has a much greater effect on elk recruitment than does wolf predation.¹⁰⁷ In Idaho, Montana, and Wyoming, elk license sales have increased since wolf reintroduction, and the elk population of the Northern Rocky Mountains has also increased, particularly in Montana and Wyoming.¹⁰⁸

Wolves do prey on elk and other ungulates, as is their expected ecological function; however, elk are adapted to living amongst wolves. Elk exhibit behavioral adaptations such as using higher-risk areas during the day and lower-risk areas during dawn and dusk, when wolves are most active.¹⁰⁹ Other research, however, has shown that elk do not significantly modify their

¹⁰¹ Wright et al., *supra* note 97.

¹⁰² Stephanie Butzer & Maggy Wolanske, *After a Harsh Winter Decimated Elk Herds in NW Colorado, There Is Now Cautious Optimism About Their Recovery*, Denver 7 (Oct. 6, 2025), <https://www.denver7.com/news/recreation/after-a-harsh-winter-decimated-elk-herds-in-nw-colorado-there-is-now-cautious-optimism-about-their-recovery>.

¹⁰³ Colo. Parks & Wildlife, *2026 Big Game License Recommendation Summary by Species* (2026), https://cpw.state.co.us/sites/default/files/dam/o7pw1n1qjt/item.11_chapterw2_2026biggameicenserecommendationsummary_final_pwcmailing_24a.pdf; Stephanie Butzer, *Elk Herds Devastated by the 2022–23 Winter in NW Colorado Are Now At—or Above—Objective Population Levels*, Denver 7 (May 6, 2026), <https://www.denver7.com/follow-up/elk-herds-devastated-by-the-2022-23-winter-in-nw-colorado-are-now-at-or-above-objective-population-levels>.

¹⁰⁴ Barber-Meyer et al. *supra* note 99.

¹⁰⁵ Sarah R. Hoy et al., *Negative Frequency-Dependent Prey Selection by Wolves and Its Implications on Predator–Prey Dynamics*, 179 *Animal Behaviour* 247–65 (2021).

¹⁰⁶ Wright et al., *supra* note 97.

¹⁰⁷ Paul M. Lukacs et al., *Factors Influencing Elk Recruitment across Ecotypes in the Western United States*, 82 *J. Wildlife Mgmt.* 698–710 (2018).

¹⁰⁸ Mark Heinz, *Colorado Range Scientist Says Wolf Reintroduction Will Be Good for Ranchers & Hunters*, *Cowboy State Daily* (Jan. 13, 2024), <https://cowboystatedaily.com/2024/01/13/only-time-will-tell-if-colorado-wolves-become-the-villains-many-believe-they-are/>.

¹⁰⁹ Michel T. Kohl et al., *Diel Predator Activity Drives a Dynamic Landscape of Fear*, 88 *Ecological Monographs*, no.4, 638–52 (2018).

spatiotemporal movements in response to wolf-predation risk.¹¹⁰ These findings demonstrate that elk behavior is adaptable to the presence of wolves.

Colorado has a thriving, potentially *over*-abundant elk population, which is unlikely to face significant statewide reductions due solely to wolves. Mule deer herds are in trouble in Colorado and around the West because of habitat and corridor loss, competition with elk, and oil and gas drilling, but not from native carnivores.

As noted, CPW has not documented any measurable effects from wolves on ungulate populations in Colorado thus far, and it expanded ungulate monitoring before and during reintroduction to provide useful data on trends moving forward.¹¹¹ Those studies are ongoing.¹¹²

* * *

In short, CPW's management to date shows a state agency attempting to do two hard things at once: restore a native carnivore as required by Colorado law, and do so in a way that reduces burdens on the people most likely to bear the costs. The record shows meaningful progress on both fronts. Recovery is advancing; transparency has, in general, been real and sustained; nonlethal infrastructure is robust and expanding; livestock effects remain localized and insignificant at the statewide level; and no population-level ungulate effects have been observed. While CPW's work is certainly not finished, and certain improvements are warranted, the most rational path forward is continued adaptive refinement of the program through the ongoing state-led process.

B. Some aspects of CPW's management need improvement.

While much of the wolf restoration program has been successful thus far, some elements of CPW's management should be improved, including (1) increasing and clarifying the standard for when lethal take is allowed, (2) increasing transparency of depredation investigations, and (3) improving the standards for compensation claims. However, CPW can and should implement these improvements without any change to the existing federal-state management framework.

1. The bar is too low for lethal take based on chronic depredation.

Colorado's chronic-depredation framework should maintain a sufficiently high threshold for lethal control while wolves are still re-establishing in the state. The 10(j) rule gives managers flexibility to reduce conflict and support coexistence, but that flexibility must be implemented in

¹¹⁰ Jeremy J. Cusack et al., *Weak Spatiotemporal Response of Prey to Predation Risk in a Freely Interacting System*, 89 J. Animal Ecology, no. 1, 120-31 (2020).

¹¹¹ *Wolf Plan*, *supra* note 4, at 14-16, 38-39.

¹¹² *2026 Annual Report*, *supra* note 31, at 6.

a way that advances recovery.¹¹³ It should not become a mechanism for routine lethal control before wolves have a meaningful opportunity to establish territories, form families, and contribute to population growth. Thus, (a) CPW should strengthen its requirements for lethal control permits, in recognition of (b) the scientific evidence that lethal control does not reliably reduce wolf-livestock conflict and (c) the scientific evidence that lethal control does not promote social tolerance.

a. The rules and regulations allowing lethal control should be strengthened.

State and federal rules allow lethal control without expressly requiring nonlethal measures as a first line of defense. Colorado’s Administrative Directive OW-15, approved in December 2024, defines “chronic depredation” without any reference to reasonable, site-specific, nonlethal conflict minimization measures being meaningfully implemented and exhausted. Similarly, CPW regulations call for mere “consider[ation]” of unspecified “nonlethal conflict minimization materials and techniques” before a lethal take permit is issued, without explicitly requiring that those methods be employed or explaining what degree of use might warrant lethal take.¹¹⁴ The Service’s regulations authorizing lethal control for Colorado wolves are even more lax, with no reference to nonlethal measures.¹¹⁵ That is a problem. Lethal take should remain an extraordinary and narrowly limited response, not a substitute for proactive husbandry, carcass management, range riding, fladry, fencing, livestock-guarding animals, hazing, and/or other conflict-prevention tools.

This concern should be considered within the existing federal-state cooperative framework. It does not require federal displacement of Colorado’s lead management role, and it should not be used to delay additional wolf releases. Instead, Colorado should strengthen its own chronic-depredation framework. That change would preserve management flexibility under the 10(j) rule while ensuring that lethal take is used only when necessary, narrowly tailored, and consistent with recovery.

Several safeguards should be considered in evaluating Colorado’s implementation. Before lethal take is authorized, the record should include a written determination identifying the specific wolf, wolves, or family targeted; documenting repeated predation attributable to those animals, including the evidence by which that attribution was made; explaining why additional predation is likely to continue without lethal intervention; and showing that conflict continued despite reasonably exhaustive use of site-specific nonlethal measures. The evidence supporting that determination should be separate from and independent of compensation-claim materials.

¹¹³ 16 U.S.C. §§ 1539(a)(1)(A), (j)(2)(A).

¹¹⁴ 2 Colo. Code Regs. § 406-10:1001(C)(1)(b).

¹¹⁵ 50 C.F.R. § 17.84(n)(5)(v).

CPW should also require at least one agency site visit before a chronic-depredation permit is issued. That site visit should evaluate terrain, livestock type, grazing practices, calving or lambing conditions, carcass management, bone piles, attractants, water sources, salt or mineral placement, range-rider feasibility, fencing or fladry feasibility, and other site-specific factors that affect conflict risk. CPW should document which nonlethal measures were recommended, which were used, for how long, and why they did or did not work. If hazing or other targeted deterrence is relied on, the record should show the duration and intensity of that effort. This record should be standardized and transparent in reporting, consistent with the recommendations identified in the Center for Biological Diversity's 2026 Rulemaking Petition to Colorado Parks and Wildlife.¹¹⁶ The documentation supporting a lethal control permit should be made publicly available before or concurrent with issuance of the permit.

Significant scientific literature supports requiring this kind of site-specific documentation before lethal take. Nonlethal measures can reduce livestock losses when they are matched to the landscape and implemented properly. Moreira-Arce et al. (2018) identified livestock-guarding dogs, herding, fencing, electrified fencing, and electrified fladry as tools that can significantly reduce losses from large carnivores.¹¹⁷ Bruns et al. (2020) found that livestock protection measures can reduce wolf predation risk and support coexistence.¹¹⁸ Louchouart and Treves (2023) found that low-stress livestock handling protected cattle in a landscape occupied by multiple large carnivore species.¹¹⁹ Boronyak et al. (2020) found multiple different factors making coexistence a superior approach to lethal removal of large carnivores.¹²⁰ These studies support a framework in which lethal take is available only after meaningful, documented prevention efforts have failed.

Carcass management and attractant reduction must also be part of the analysis before lethal take is authorized, unless removal is genuinely impracticable because of terrain, weather, or safety. Carcasses and bone piles can attract wolves and other predators and may contribute to repeated conflict. Wolves can detect carcasses from substantial distances,¹²¹ and research shows that anthropogenic resources and livestock-management conditions can affect carnivore diet,

¹¹⁶ Ctr. for Bio. Diversity, *Citizen Petition for Rulemaking re Amending the Colorado Code of Regulations to Clarify "Use of a Variety of Non-lethal Conflict Minimization Materials and Techniques" and "Reasonable Conflict Minimization Techniques"* (Mar. 9, 2026), https://cpw.widen.net/s/b7brsztf2r/wolfchronicdepredationpetition_website.

¹¹⁷ Darío Moreira-Arce et al., *Management Tools to Reduce Carnivore-Livestock Conflicts: Current Gap and Future Challenges*, 71 *Rangeland Ecology & Mgmt.* 389 (2018).

¹¹⁸ Antonia Bruns et al., *The Effectiveness of Livestock Protection Measures Against Wolves (Canis lupus) and Implications for Their Co-Existence with Humans*, 21 *Global Ecology & Conservation* e00868 (2020).

¹¹⁹ Adrian Treves et al., *Low-Stress Livestock Handling Protects Cattle in a Five-Predator Habitat*, 11 *PeerJ* 1 (2023).

¹²⁰ Louise Boronyak et al., *Transitioning Towards Human–Large Carnivore Coexistence in Extensive Grazing Systems*, 49 *Ambio* 1982 (2020).

¹²¹ Roger P. Peters & L. David Mech, *Scent-Marking in Wolves*, 63 *Am. Scientist* 628 (1975).

movement, and conflict risk.¹²² Where conflict is driven or worsened by attractants, poor carcass management, or preventable husbandry conditions, lethal take should not shift those costs onto wolves or the public.

The scientific record also cautions against treating lethal removal as the default conflict response. Treves et al. (2016) concluded that predator control should not proceed without rigorous evidence of effectiveness.¹²³ Eklund et al. (2017) found limited evidence supporting many interventions intended to reduce livestock predation by large carnivores, underscoring the need for careful evaluation rather than assumption-driven management.¹²⁴ Lorand et al. (2022) found that interventions aimed at scaring large carnivores away were generally more effective than removing them.¹²⁵ Santiago-Avila et al. (2018) found that killing wolves to prevent livestock predation may protect one farm while increasing risk to neighboring farms, suggesting that lethal control may displace conflict rather than resolve it.¹²⁶

Some landscapes, particularly large, remote, rugged, or heavily forested public-lands allotments, may be difficult or impossible to defend effectively with nonlethal tools. In those circumstances, the issue is whether lethal take is truly necessary, or whether some livestock loss is a foreseeable risk of grazing in occupied wolf habitat during early restoration.

That distinction matters. Public lands are managed for multiple uses, including wildlife conservation, ecological restoration, and recovery of native species. Grazing permittees do not have a right to landscapes free of native carnivores. Where an allotment cannot practically be defended with reasonable nonlethal measures, the appropriate response may be to adjust grazing practices, turnout timing, herd supervision, carcass-removal logistics, pasture use, compensation rules, or permit conditions. Lethal take should not be presumed simply because livestock are present in high-risk wolf habitat on public land.

¹²² Andrea T. Morehouse & Mark S. Boyce, *From Venison to Beef: Seasonal Changes in Wolf Diet Composition in a Livestock Grazing Landscape*, 9 *Frontiers Ecology & Env't* 440 (2011); Tyler R. Petroelje et al., *Subsidies from Anthropogenic Resources Alter Diet, Activity, and Ranging Behavior of an Apex Predator (Canis lupus)*, 9 *Sci. Rep.* 13438 (2019).

¹²³ Adrian Treves et al., *Predator Control Should Not Be a Shot in the Dark*, 14 *Frontiers Ecology & Env't* 380 (2016) [hereinafter “*Predator Control*”].

¹²⁴ Ann Eklund et al., *Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores*, 7 *Sci. Reps.* 2097 (2017).

¹²⁵ Charlotte Lorand et al., *Effectiveness of Interventions for Managing Human-Large Carnivore Conflicts Worldwide: Scare Them Off, Don't Remove Them*, 838 *Sci. Total Environ.* 156195 (2022).

¹²⁶ Francisco J. Santiago-Ávila et al., *Liberalizing the Killing of Endangered Wolves Was Associated with More Disappearances of Collared Individuals in Wisconsin, USA*, 10 *Sci. Reps.* 19280 (2020).

b. Lethal removal in response to conflict is not supported by the best available science.

The scientific literature generally finds that lethal removal of gray wolves fails to produce consistent long-term reductions in livestock predation and is less effective than nonlethal coexistence strategies. Underlying the effectiveness of nonlethal techniques is the reality that wolves will preferentially select wild prey even when domestic livestock are abundant.¹²⁷

Scientific literature reviews are an excellent tool to capture the full body of empirical evidence. Literature reviews on the topic of lethal management to prevent wolf conflict or improve social tolerance for wolves find large gaps in knowledge and a crucial lack of empirical support for killing wolves to further those goals. Systematic reviews of the outcomes of lethal and nonlethal predator control techniques on future livestock predation most commonly find that lethal control has little or no effect, especially relative to non-lethal techniques.¹²⁸

For example, a 2020 scientific literature review synthesized evidence regarding livestock protection measures used against wolves across Europe and North America, and found that nonlethal methods, including electric fencing, livestock guardian dogs, and shepherding, often significantly reduced predation rates, but that evidence supporting lethal control was weak or inconsistent.¹²⁹ By comparing multiple intervention types, this review indicates that lethal control has less empirical support than nonlethal intervention. A global review done in 2022 assessed the effectiveness of interventions used to reduce conflicts between humans and large carnivores and evaluated lethal and nonlethal management methods across numerous case studies worldwide. The study concluded that lethal interventions, including culling and translocation, were generally ineffective or inconsistently effective in reducing conflict. By contrast, nonlethal approaches such as deterrents, fencing, and active husbandry practices showed greater promise.¹³⁰

A 2025 review, Jacobs et al., 2025, evaluated wolf-cattle conflict mitigation methods used in the United States, comparing lethal and nonlethal strategies. The authors found that nonlethal

¹²⁷ Andrea Janeiro-Otero et al., *Grey Wolf (Canis lupus) Predation on Livestock in Relation to Prey Availability*, 243 *Biological Conservation* 108433 (2020).

¹²⁸ Treves et al., *Predator Control*, *supra* note 123; Robert J. Lennox et al., *Evaluating the Efficacy of Predator Removal in a Conflict-Prone World*, 224 *Biological Conservation* 277–89 (2018); Moreira-Arce et al., *supra* note 117; Lily M. van Eeden et al., *Carnivore Conservation Needs Evidence-Based Livestock Protection*, 16 *PLoS Biology* e2005577 (2018); Igor Khorozyan & Matthias Waltert, *A Framework of Most Effective Practices in Protecting Human Assets from Predators*, 24 *Human Dimensions Wildlife* 380 (2020); Adrian Treves, *Predator Control Needs a Standard of Unbiased Randomized Experiments With Cross-Over Design*, 7 *Frontiers Ecology & Evolution* 1 (2019); Lorand et al., *supra* note 125; Antonia Bruns et al., *The Effectiveness of Livestock Protection Measures Against Wolves (Canis lupus) and Implications for Their Co-Existence with Humans*, 21 *Glob. Ecology & Conservation* 1(2020); Eklund et al., *supra* note 124; Adrian Treves et al., *Gold-Standard Experiments to Deter Predators from Attacking Farm Animals*, 14 *Animal Frontiers* 40 (2024).

¹²⁹ Bruns et al., *supra* note 128.

¹³⁰ van Eeden et al., *supra* note 128..

interventions such as range riding, fladry, fencing, and deterrents generally achieved stronger reductions in cattle risk than lethal methods.¹³¹ The paper also noted increasing adoption of coexistence-focused practices among ranchers and wildlife agencies. Importantly, the authors argue that lethal control alone is insufficient as a long-term strategy and that investment in preventative tools is more effective and socially sustainable. Furthermore, conflict is often linked to human land-use practices, attractants, and husbandry conditions rather than predator abundance alone. Lethal removal crucially fails to address the environmental and behavioral conditions producing conflict.¹³² Coexistence and preventative management strategies are more durable than reactive killing.

Literature reviews also call into question the scientific standards used to justify predator killing programs, including wolf culls. Several reviews found that standards are insufficiently rigorous, and many lethal control policies are implemented without rigorous evidence demonstrating effectiveness.¹³³ They found that many studies lacked experimental controls or long-term monitoring and that it is essential to require stronger scientific standards before governments implement lethal predator management programs. Predator populations often compensate behaviorally or reproductively after removals, potentially undermining intended outcomes and increasing wolf-livestock conflict in the long run.

The scientific community has raised broad methodological concerns surrounding predator killing, and has highlighted the ethical and ecological concerns surrounding predator control. In addition to methodological concerns, a 2017 review emphasizes that there are not many scientific publications with evidence of effectiveness for any intervention intended to prevent livestock predation by large carnivores.¹³⁴ This enormous gap in evidence raises concerns about lethal control in management that is bound by the direction of the “best available science.”¹³⁵

The relative ineffectiveness of lethal control is partly explained by the behavioral ecology of wolves. Wolves and their hunting dynamics are most stable, predictable, and least prone to conflict when they have achieved a high degree of pack formation.¹³⁶ The robust social structures within packs moderate behavior, concentrate land use through territoriality, and increase native

¹³¹ Brooke Jacobs et al., *The Expanding Use and Effectiveness of Nonlethal Methods for Mitigating Wolf-Cattle Conflict*, 47 *Rangelands* 223 (2025).

¹³² Morehouse & Boyce, *supra* note 122.

¹³³ Treves et al., *Predator Control*, *supra* note 123 ; Eklund et al., *supra* note 124; van Eeden et al., *supra* note 128.

¹³⁴ Eklund et al., *supra* note 124..

¹³⁵ *Id.*

¹³⁶ Aimee Tallian et al., *Wolves in a Human World: Social Dynamics of the Northern Hemisphere’s Most Iconic Social Carnivore*, in *Social Strategies of Carnivorous Mammalian Predators: Hunting and Surviving as Families* 89 (2023); Arian D. Wallach et al., *More than Mere Numbers: The Impact of Lethal Control on the Social Stability of a Top-Order Predator*, 4 *PLoS ONE* e6861 (2009).

prey hunting success.¹³⁷ Long-term culling disrupts these dynamics over and over, leading to increased high-risk single wolf activity and increased conflict.¹³⁸ Even selective culling of wolves disrupts the social structures of packs, and this instability can lead to greater conflicts with the livestock industry.¹³⁹ The killing of key pack members and the resulting disruption of social hierarchies frequently causes packs to split up and scatter, or packs to take on more high-risk or opportunistic hunting behaviors, which can involve livestock rather than native prey. These patterns give important context to predation events in Colorado like the recent revelation that the King Mountain pack's breeding female was shot and killed by a rancher after the pack's breeding male died during CPW capture and handling activities.

Removal addresses immediate conflicts but does not prevent conflicts from reoccurring in that area the following grazing season.¹⁴⁰ Removal results in a cycle of wolf colonization, predation, and wolf removal that repeats itself.¹⁴¹ Lethal control must be regularly repeated, which maintains the ongoing conflict and often fails to reduce the impacts of damage-causing individuals, since targeting a specific individual is challenging, if not nearly impossible. Nonlethal interventions are more effective in mitigating conflict than the translocations and killing of large carnivores to mitigate human-large carnivore conflict.¹⁴² They also ensure more permanent deterrence over a large area and can often be cheaper over the long term.¹⁴³

Investigation of whether lethal wolf removals reduce subsequent livestock predation risk have found that lethal removals sometimes displace risk geographically rather than eliminating it.¹⁴⁴ In some cases, neighboring farms experienced increased predations following wolf killings, possibly due to disruptions in pack structure and territorial stability. This research challenges the

¹³⁷ L. Mark Elbroch & Adrian Treves, *Perspective: Why Might Removing Carnivores Maintain or Increase Risks for Domestic Animals?*, 283 *Biological Conservation* 1 (2023); Håkan Sand et al., *Effects of Hunting Group Size, Snow Depth and Age on the Success of Wolves Hunting Moose*, 72 *Animal Behaviour* 781 (2006); Wallach et al., *supra* note 136.

¹³⁸ Shlomo Preiss-Bloom et al., *Landscape of Risk: Responses of Grey Wolves to Lethal Control in a Mosaic Landscape*, 71 *Eur. J. Wildlife Res.* 24 (2024); Scott M. Brainerd et al., *The Effects of Breeder Loss on Wolves*, 72 *J. Wildlife Mgmt.* 89 (2008); Wallach et al., *supra* note 136.

¹³⁹ Treves et al., *Predator Control*, *supra* note 123; Camille Imbert et al., *Why Do Wolves Eat Livestock? Factors Influencing Wolf Diet in Northern Italy*, 195 *Biological Conservation* 156 (2016).

¹⁴⁰ Elizabeth H. Bradley, *Evaluation of Wolf-Livestock Conflicts and Management in the Northwestern United States* (2004) (Master's thesis, University of Montana) (on file with ScholarWorks, University of Montana); Marco Musiani et al., *Seasonality and Recurrence of Depredation and Wolf Control in Western North America*, 33 *Wildlife Soc'y Bulletin* 876 (2005).

¹⁴¹ Ed Bangs et al., *Non-Lethal and Lethal Tools to Manage Wolf-Livestock Conflict in the Northwestern United States*, 22 *Proc. Vertebrate Pest Conf.* 7, 9 (2006).

¹⁴² Eklund et al., *supra* note 124; Khorozyan & Waltert, *supra* note 128; Moreira-Arce et al., *supra* note 117; Treves et al., *Predator Control*, *supra* note 123.

¹⁴³ John A. Shivik et al., *Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents*, 17 *Conservation Biology* 1531 (2003).

¹⁴⁴ Francisco J. Santiago-Ávila et al., *Killing Wolves to Prevent Predation on Livestock May Protect One Farm but Harm Neighbors*, 13 *PLoS ONE* e0189729 (2018).

assumption that killing wolves prevents conflict more broadly and instead suggests that lethal management can instead redistribute conflict.

Data on livestock losses to wolves in the greater Yellowstone ecosystem, where wolves were reintroduced in 1995, also indicate that lethal removals of wolves do not reduce livestock losses. Wielgus and Peebles (2014) modeled these data and initially found that livestock losses actually increased with increasing wolf-killing effort.¹⁴⁵ Poudyal et al. (2016) took issue with Wielgus and Peebles' statistical treatment of the time-series data (most particularly the failure to consider a time-lag variable), and their re-analysis of the dataset indicated that killing wolves increases losses of domestic sheep during the same year, but decreased sheep and cattle losses during the following year.¹⁴⁶

Subsequently, Kompaniyets and Evans (2017) re-ran the analysis accounting for the non-linear nature of wolf population growth, livestock predation, and wolf killing.¹⁴⁷ Kompaniyets and Evans' model confirmed that cattle losses increased as wolf killing increased over the first 25 years of the program but projected that, in year 25 (as wolf populations hit saturation and leveled off), cattle losses would decrease with increased wolf killing effort.¹⁴⁸ There is no published study indicating whether this modeled reduction in cattle losses has been attained, and the underlying assumption that wolf populations would stabilize has not yet been realized—partly because of ongoing killing of wolves by humans. According to Kompaniyets and Evans, “[o]nly an increased removal of wolves well above and beyond the rate used by wildlife managers will reduce the rate of cattle depredations, but this level of removal is likely to increase public reaction to the killing of wolves.”¹⁴⁹ Thus, based on the Yellowstone area data, reducing livestock losses through wolf killing is theoretically possible only after wolf populations have stabilized at large numbers, and even that effect has yet to be demonstrated empirically.

Collectively, the best available science—which the Service is obligated to consider in its implementation of the ESA, including the 10(j) rule¹⁵⁰—challenges the assumption that lethal management reliably resolves gray wolf conflict with livestock operators. While some research indicates that targeted removals may temporarily reduce livestock predation under specific conditions, the broader scientific literature increasingly suggests that lethal control often produces inconsistent results, may increase livestock predation by destabilizing wolf social

¹⁴⁵ Robert B. Wielgus & Kaylie A. Peebles, *Effects of Wolf Mortality on Livestock Depredations*, 9 PLoS ONE e113505 (2014).

¹⁴⁶ Niraj Poudyal et al., *Wolf Lethal Control and Livestock Depredations: Counter-Evidence from Respecified Models*, 11 PLoS ONE e0148743 (2016).

¹⁴⁷ Lyudmyla Kompaniyets & Marc A. Evans, *Modeling the Relationship Between Wolf Control and Cattle Depredation*, 12 PLoS ONE e0187264 (2017); Wielgus & Peebles, *supra* note 145; Poudyal, *supra* note 146.

¹⁴⁸ Kompaniyets & Evans, *supra* note 147.

¹⁴⁹ *Id.* at 11.

¹⁵⁰ 16 U.S.C. § 1536(a)(2).

structures, and can fail to address the root causes of conflict. Across many studies, nonlethal approaches demonstrate stronger and more sustainable outcomes.

The literature also highlights the need for more rigorous experimental designs and evidence-based wildlife policy. Rather than relying primarily on culling, many researchers advocate integrated coexistence strategies that combine preventative livestock management, compensation programs, and selective intervention only when necessary.

c. The best available science does not support the claim that allowing lethal take improves social tolerance of wolves.

One justification often put forward for allowing lethal take is that it improves buy-in or increases tolerance for wolf populations, thereby facilitating recovery. But this claim is not well supported by the best available science. The original 10(j) rule was premised in part on the assertion that “giving the Secretary of the Interior greater regulatory flexibility and discretion in managing the reintroduced species to encourage recovery in collaboration with partners, especially private landowners.”¹⁵¹ This assertion—at least as it pertains to lethal control—runs contrary to numerous scientific studies and has not been borne out over the initial three years of the Colorado wolf recovery effort.

A body of scientific research indicates that allowing wolves to be killed does not reliably promote social tolerance. Browne-Nuñez et al. (2015) found that the delisting of wolves in Wisconsin in 2012 failed to produce a reduction in wolf-poaching inclinations,¹⁵² and Santiago-Ávila et al. (2020) found that after wolves were de-listed from ESA protections in Wisconsin and wolf hunting commenced, the number of wolves lost to poaching actually increased.¹⁵³ These studies suggest that poaching rates may be lower if wolves enjoy greater state and/or federal protections, with lethal control limited.

Factors other than availability of lethal control appear to play a more significant role in social tolerance. Bruskotter et al. (2026) found that social tolerance is driven by a number of factors, including perceived risk from the species in question, social identity and group dynamics, shifting attitudes and economic opportunities.¹⁵⁴ Metcalf et al. (2025) found that tolerance for wolves in Montana generally was increasing, correlated with direct experience but confined by identity: wolf hunters had very low tolerance for wolves, and that had not increased

¹⁵¹ 88 Fed. Reg. 77014, 77020 (Nov. 8, 2023).

¹⁵² C. Browne-Nuñez et al., *Tolerance of Wolves in Wisconsin: A Mixed-Methods Examination of Policy Effects on Attitudes and Behavioral Inclinations*, 189 *Biological Conservation* 59 (2015).

¹⁵³ Santiago-Ávila et al., *supra* note 126.

¹⁵⁴ Jeremy T. Bruskotter et al., *Toward a Synthetic Theory of Tolerance for Carnivores: Learning from a Half-Century of Research on Attitudes Toward Wolves*, 6 *Conservation* 1 (2026); *see also* Beatrice Frank et al., *Human-Wildlife Interactions: Turning Conflict into Coexistence* (2026).

markedly over the course of the study.¹⁵⁵ Thus, the body of studies that use hypothesis-testing to determine whether social tolerance develops as a result of lethal wolf removals has generally not found strong support for that hypothesis and instead indicates that social tolerance depends mostly on other factors.

* * *

In sum, Colorado’s implementation of the 10(j) rule must include sufficient safeguards to ensure that lethal take remains a true last resort. Relevant safeguards include publicly available written lethal-take determinations before removal begins, evidence independent of compensation claims, site-specific exhaustion of reasonable nonlethal measures, documentation that conflict continued despite those measures, evaluation and removal of attractants where practicable, short permit duration, prompt reporting of wolf injury or death, compliance with applicable lease or permit terms, and standardized predation-response training. These improvements would align with the best available science showing that lethal control has limited utility in improving wolf-livestock interactions. They would also strengthen Colorado’s implementation of the 10(j) rule while preserving its lead role and advancing wolf recovery in the state. These improvements would also advance the Service’s statutory obligation to conserve and recover imperiled species like the gray wolf.

2. Livestock depredation investigations require greater transparency.

Colorado’s depredation investigation process should be transparent, consistent, and rigorous. Depredation findings can influence agency wolf killing, compensation claims, public controversy, and future management restrictions. Livestock deaths should not be attributed to wolves unless the evidence supports that conclusion through a careful field investigation that should be standardized, transparent, and predictable.

The RFI specifically seeks information on incident response, conflict mitigation, verification of predations, documentation of claims, communication, outreach, tracking of conflict risk, and recommendations to improve implementation of the 10(j) rule. Transparency in predation investigations is central to each of those issues. A clear record helps the Service, CPW, operators, conservation organizations, and the public understand whether management actions are reducing conflict while advancing wolf recovery.

Depredation findings used to support lethal take should be distinct from compensation determinations because reimbursement decisions and lethal-take decisions are not the same. A compensation process may account for uncertainty in ways that are inappropriate when the consequence is killing state- and federally protected wolves. Before lethal take is authorized, the

¹⁵⁵ Alexander L. Metcalf et al., *Increasing Tolerance of Wolves in Montana, United States (2012–2023)*, 8 *Conservation Sci. & Prac.* e70218 (2026).

record should contain an independent, evidence-based determination that wolf predation occurred and that the relevant wolf, wolves, or wolf family were responsible.

That distinction is supported by science. Treves et al. (2016) emphasized that predator-control decisions should be grounded in rigorous evidence rather than unsupported assumptions.¹⁵⁶ Eklund et al. (2017) found that the evidence base for many large-carnivore conflict interventions is limited, making careful documentation and evaluation especially important.¹⁵⁷ Where predation classifications are uncertain or based on incomplete evidence, they should not be used to justify lethal take.

This is especially important in light of Colorado's recently enacted SB25-038, "Wildlife Damage Protection of Personal Information." That law protects the personal information of people who submit wildlife-damage claims, request site assessments, or participate in proactive nonlethal measures, and makes identifying information confidential under the Colorado Open Records Act. Those privacy protections may serve legitimate interests in reducing harassment, trespass, and disclosure of sensitive personal or business information. But confidentiality protections should not prevent the public or the Service from understanding the factual basis for lethal wolf-management decisions.

SB25-038 still allows nonidentifying transparency. It does not prohibit disclosure of information about nonlethal predator-livestock conflict minimization measures so long as the information does not identify a person or business. It also does not prohibit disclosure of nonidentifying county-level data regarding claims, settlement amounts, pending claims, denied claims, and reasons for denial. Those permissible categories of information should be publicly disclosed. Personal names, addresses, and identifying business information can be redacted while still allowing disclosure of predation findings, the evidence supporting classifications, the general geography, the nonlethal measures used or recommended, and the rationale for any lethal-take decision.

Colorado should provide standardized injury and mortality investigation reports. Those reports should include detailed field observation notes, photographs, and necropsy findings, including clear documentation of any reported hemorrhaging, bite patterns, tracks, scat, carcass condition, timing, evidence of scavenging, nearby attractants, GPS collar information, and plausible alternative causes of death. Reports should clearly distinguish between confirmed wolf predation, probable wolf predation, possible wolf involvement, scavenging, unknown cause, disease, weather, birthing complications, accident, and other non-wolf causes.

The agency record should also document whether carcasses, bone piles, calving areas, lambing areas, salt or mineral sites, water sources, sick animals, or other attractants may have

¹⁵⁶ Treves et al., *Predator Control*, *supra* note 123.

¹⁵⁷ Eklund et al., *supra* note 124.

contributed to wolf presence. Conflict risk is shaped by livestock management, attractants, landscape conditions, and prey availability, not wolf presence alone. Morehouse and Boyce (2011) found seasonal shifts in wolf diet in a livestock-grazing landscape, underscoring the need to evaluate context.¹⁵⁸ Petroelje et al. (2019) found that anthropogenic resources can alter wolf diet, activity, and ranging behavior.¹⁵⁹ These findings support investigation standards that evaluate carcasses, attractants, livestock vulnerability, and husbandry conditions before treating a mortality event as evidence of chronic wolf depredation.

Without that information, depredation statistics may overstate wolf-caused conflict or hide preventable conditions that should be addressed through nonlethal management rather than lethal removal. This matters because lethal control may not reliably reduce conflict and may create unintended consequences.¹⁶⁰ Transparent investigations are therefore necessary to ensure that lethal take is not authorized based on inflated, uncertain, or poorly contextualized depredation data.

Standardized training for personnel conducting predation investigations should also be considered part of effective 10(j) implementation. Inconsistent investigation methods can lead to inconsistent classifications, which can distort compensation decisions, public reporting, and lethal-take thresholds. Standardized training and reporting would improve the quality of information available to CPW and the Service and reduce the risk that management decisions are driven by pressure or incomplete evidence.

Timely public reporting of nonidentifying predation-investigation information would strengthen the 10(j) framework. Reporting should include the classification of each incident, the general geography, the type of livestock involved, the evidence supporting the classification, whether scavenging or alternative causes were evaluated, what nonlethal measures had been used or recommended, whether attractants were present, and whether the incident was relied upon to support lethal take. This information should be made publicly available before or concurrently with any associated agency decisions. This level of transparency is compatible with legitimate privacy protections and necessary for meaningful review of 10(j) implementation.

Improving predation-investigation transparency would protect legitimate privacy interests while promoting public accountability and ensuring predictability for the public and livestock operators. It would help operators understand what evidence and mitigation measures matter, help the Service evaluate whether the 10(j) rule is being implemented consistently with the ESA's species conservation and recovery mandates, and help ensure that lethal take remains a true last resort.

¹⁵⁸ Morehouse & Boyce, *supra* note 122.

¹⁵⁹ Petroelje et al., *supra* note 122.

¹⁶⁰ Section III.B.1, above.

3. CPW should improve its compensation standards.

The 10(j) rule does “not authorize and/or govern the State of Colorado’s livestock loss compensation program.”¹⁶¹ It is therefore unclear why, or on what basis, the Service is inviting feedback about compensation in its RFI. Nonetheless, the state’s current framework, including fair market value for confirmed losses and ratio claims allowing 5:1 or 7:1 payouts for missing livestock, is generous. The program should, if any changes are made, implement structural reform and higher standards of proof in many contexts, to avoid falsely blaming wolves for livestock losses.

In 2015, in the U.S., livestock owners estimated almost 3.9 million cattle and calves were lost to all causes (nonpredator and predator).¹⁶² Nonpredator causes were responsible for nearly 98% of all adult cattle deaths reported and almost 89 percent of all calf deaths.¹⁶³ In Colorado in 2010 (before wolf reintroduction) ranchers self-reported that a total of 55,000 cows and 55,000 calves were lost, that non-predator causes attributed to the loss of 54,200 cows (99%) and 50,700 (92%) of calves, and that predators were responsible for the loss of 800 cows (1%) and 4,300 (8%) calves.¹⁶⁴

A study near Salmon, Idaho, conducted in 1999 and 2000 found that “[w]olf predation risk did not influence cattle movement patterns or group size, suggesting that wolf-caused mortality rates, and/or wolf-livestock predatory interactions were not frequent enough to influence cattle behavior” despite frequent recurring wolf predations within these herds.¹⁶⁵ While the cattle grazing in a remote mountainous federal allotment overlapped with wolves throughout the grazing seasons both years, calf losses to wolves totaled 1.2% of the cattle present but nonpredator deaths totaled 2.3%, so even with the unusually high wolf predation rate, only about one-third of the missing livestock were due to wolves. Overall, significantly more calves died of previously undetected pneumonia than from wolf predation.

A subsequent study in Arizona and New Mexico found that even in rough topography and vegetation, livestock operators found 100% of wolf predation.¹⁶⁶ Further, those calves selected by predators were on average 25 days younger than the surviving cohort.¹⁶⁷ The authors

¹⁶¹ 91 Fed. Reg. at 17299.

¹⁶² U.S. Dep’t of Agric., Animal and Plant Health Inspection Serv., *Death Loss in U.S. Cattle and Calves Due to Predator and Nonpredator Causes, 2015*, at i (2017).

¹⁶³ *Id.*

¹⁶⁴ U.S. Dep’t of Agric., Nat. Agric. Statistics Serv., *Cattle Death Loss, 2010*, at 6 (2011).

¹⁶⁵ John Oakleaf et al., *Effects of Wolves on Livestock Calf Survival and Movements in Central Idaho*, 67 *J. of Wildlife Mgmt.* 299, 304 (2003).

¹⁶⁶ Stewart W. Breck et al., *Domestic Calf Mortality and Producer Detection Rates in the Mexican Wolf Recovery Area: Implications for Livestock Management and Carnivore Compensation Schemes*, 144 *Biological Conservation* 930 (2011).

¹⁶⁷ *Id.*

concluded that the carcass detection rate depended primarily on operator search effort, and that the Idaho study was likely a worst-case scenario.¹⁶⁸ They also recommended changing husbandry practices to limit calving to a seasonal endeavor and that performance payment may be a better compensation strategy than ex post compensation schemes.¹⁶⁹

The vast majority of costs associated with the Colorado wolf program come from reimbursement for indirect losses,¹⁷⁰ despite a conspicuous lack of evidence to support that livestock weight and pregnancy differences can be explained by wolf presence. Few peer-reviewed scientific studies have been conducted on the indirect effects of wolves on livestock, and the data from those few studies is confounding and insufficient to support compensation for indirect losses. There is scientific evidence that not all livestock operations with confirmed direct losses also have indirect losses. For example, in the “worst-case” Idaho study where wolf predation was unusually high and carcass detection was unusually low, no cattle weight loss effects were reported by the operator.¹⁷¹

In another peer-reviewed study that included eighteen ranches participating at the Blackfoot Challenge in Montana, researchers found no evidence that wolf packs with home ranges overlapping these ranches had any detrimental effects on calf weights, except where wolves were also confirmed to have killed livestock.¹⁷² And in this study area, those calves were 3.5% lighter than calves on ranches where no wolf predation occurred.¹⁷³ Further, the results also emphasize that “the amount of variation in calf weight due to wolf effects is relatively small when compared to other factors such as ranch-specific effects and changes in climatological factors.”¹⁷⁴

Lack of proof of causation for indirect losses to wolves opens the door to widespread abuse and misuse of taxpayer funds. There are many factors unrelated to wolves, including climate warming, poisonous plants, disease, illness, and other predators such as coyotes and domestic dogs, that result in the loss of livestock and livestock production losses, even in areas where wolves are present.¹⁷⁵ In 2015, predation accounted for 2.4 percent of cattle losses and 11.1

¹⁶⁸ *Id.* at 931.

¹⁶⁹ *Id.* at 935.

¹⁷⁰ 2024 Annual Report, *supra* note 6, at 6; 2025 Annual Report, *supra* note 18, at 7; 2026 Annual Report, *supra* note 31, at 7; *see* Section III.A.3, above.

¹⁷¹ John Oakleaf et al., *supra* note 165.

¹⁷² Joseph P. Ramler et al., *Crying Wolf? A Spatial Analysis of Wolf Location and Depredations on Calf Weight*, 96 *Am. J. of Agric. Econ.* 631 (2014).

¹⁷³ *Id.* at 648.

¹⁷⁴ *Id.* at 648–49.

¹⁷⁵ Humane Society of the United States, *Government Data Confirm That Wolves Have a Negligible Effect on U.S. Cattle & Sheep Industries 2–5* (2019).

percent of calf losses, while nonpredator causes accounted for 97.6 percent of cattle losses and 88.9 percent of calf losses.¹⁷⁶

- Of the 1,694,620 cattle lost to nonpredator causes, the top three known causes were respiratory problems (23.9%), old age (11.8%), and bad weather (9.3%).¹⁷⁷
- Of the 1,904,810 calves lost to nonpredator causes, the top three known causes of lost calves were respiratory illness (26.9%), calving-related problems (17.8%), and digestive problems (15.4%).¹⁷⁸
- Of the 41,680 cattle lost to predator causes, the top three known causes by percentage of lost cattle were coyotes (40.5%), dogs (11.3%), and vultures (5.2%).¹⁷⁹
- Of the 238,890 calves lost to predator causes, the top three known causes by percentage of lost calves were coyotes (53.1%), vultures (10.3%), and dogs (6.6%).¹⁸⁰

Evidence indicates that livestock loss factors unrelated to wolves, including climate warming, weather, respiratory disease, calving complications, neglect, poisonous plants, and predators other than wolves, including coyotes, domestic dogs, and vultures, are far more common causes of livestock loss, and all interact to impact total loss.

The best available science shows that high monetary compensation payouts, when detached from proactive deterrence requirements, do not independently reduce wildlife conflict or increase long-term social tolerance.¹⁸¹ Higher-performing coexistence frameworks demonstrate that compensation functions effectively only when embedded as a partial component nested within active systems of nonlethal prevention and operator participation.¹⁸²

For all these reasons, Colorado should reform its compensation program to require clearer and higher standards of proof, particularly for indirect losses. Doing so would help ensure wolves are not falsely blamed for ordinary operating losses, saving the state and taxpayers money while still providing fair compensation to affected operators.

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¹⁷⁶ U.S. Dep't of Agric., *supra* note 162, at 11.

¹⁷⁷ *Id.* at 33.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.* at 53.

¹⁸⁰ *Id.* at 59.

¹⁸¹ Nicholas J. DeCesare et al., *Wolf-Livestock Conflict and the Effects of Wolf Management*, 82 J. Wildlife Mgmt. 711 (2018).

¹⁸² *Id.*

The improvements to Colorado’s wolf restoration and management program outlined above are important, but they are best addressed through state processes. Colorado has shown itself to be adaptive and responsive to ongoing management challenges, and it remains committed (and legally obligated) to making progress toward establishing a self-sustaining population of wolves. So, at this time, there is no basis for altering the cooperative federal-state management framework. As discussed below, if the Service nonetheless proposes any changes, the ESA requires that those changes advance—not impair—wolf recovery.

C. FWS must support CPW’s ongoing wolf restoration program.

Under the ESA, the Service holds an affirmative mandate to advance species recovery.¹⁸³ It must proactively utilize its programs, authorities, and funding to conserve and recover imperiled species.¹⁸⁴ “In carrying out” this conservation and recovery mandate, the Service “shall cooperate to the maximum extent practicable with the States.”¹⁸⁵ The conservation and recovery mandate also applies to experimental population rules issued under ESA section 10(j), as no such rule may be issued unless the associated reintroduction “will further the conservation of [the] species.”¹⁸⁶ Thus, the FWS is legally obligated to protect and uplift imperiled species and support state-based programs that have the same mission, including reintroductions.

Colorado’s wolf restoration effort is one such program: CPW is legally obligated to reintroduce and establish a self-sustaining population of gray wolves, thereby advancing the species’ regional and national recovery.¹⁸⁷ CPW’s Wolf Plan outlines a robust, scientifically grounded approach for wolf reintroduction and management, including strategies to mitigate conflict with livestock and ranchers. Colorado law also specifically restricts killing wolves without explicit authorization by CPW.¹⁸⁸ These protective, pro-conservation state laws set Colorado apart from some other nearby states, such as Wyoming, Idaho, and Montana, that have historically implemented anti-wolf or anti-endangered species policies.¹⁸⁹

Given the Service’s overarching recovery mandate and CPW’s harmonious mandate under state law, (1) it was improper for the Service to impede Colorado’s recent effort to release

¹⁸³ 16 U.S.C. §§ 1536(a), 1533(f).

¹⁸⁴ U.S. Fish & Wildlife Serv., *Fish and Wildlife Service Manual* (2024).

¹⁸⁵ 16 U.S.C. § 1535(a).

¹⁸⁶ *Id.* § 1539(j)(2)(A).

¹⁸⁷ Colo. Rev. Stat. § 33-2-105.8 (2020); *see also* § 33-2-104(1) (mandating that the commission “issue regulations and develop management programs designed to ensure the continued ability of nongame wildlife to perpetuate themselves successfully”).

¹⁸⁸ Colo. Rev. Stat. § 33-2-105.8 (2020).

¹⁸⁹ *See, e.g.*, Wyo. Stat. Ann. § 23-1-101(a)(viii)(B) (2023) (classifying the gray wolf as a “predatory animal” across most of the state, allowing unregulated take to limit their population).

wolves from British Columbia, and (2) going forward, the Service’s main priority must be supporting and protecting Colorado’s management of its nascent wolf population.

1. FWS impeding winter 2025–26 introductions was legally and ecologically improper.

As discussed, the Service prevented CPW from conducting a third round of reintroductions in the winter of 2025–26, asserting that CPW could not legally source wolves from British Columbia.¹⁹⁰ That obstruction was improper because (a) additional releases increase the likelihood that Colorado’s small, nascent population of wolves becomes self-sustaining; and (b) the Service’s position was legally wrong and seemingly offered as mere pretext for impeding wolf recovery.

a. More reintroductions would facilitate the statutorily mandated self-sustaining population.

Colorado’s gray wolf population is making headway toward becoming self-sustaining but would benefit from additional reintroductions. As of 2026, the population comprises 32 wolves, including four known packs and 14 pups.¹⁹¹ Multiple breeding pairs have formed and successfully produced litters, evincing that translocated wolves can eventually form an established population in the state if given the opportunity.¹⁹² However, CPW has acknowledged that additional reintroductions are important, and the Wolf Plan calls for the release of 30 to 50 wolves over a three-to-five-year period.¹⁹³ With only 25 wolves reintroduced in the state, further releases would help meet the requirements of Proposition 114 and Colorado’s Wolf Plan.

Additional reintroductions are also ecologically valuable because smaller populations are more vulnerable to extinction.¹⁹⁴ Small populations face much higher risks of genetic problems, such as inbreeding and loss of genetic diversity.¹⁹⁵ Additionally, smaller populations are more

¹⁹⁰ Section II.D, above; Tracy Ross, *Documents Show Federal Government OK’d Colorado’s Wolf Plan Before Backtracking*, Colo. Sun (Jan. 8, 2026), <https://coloradosun.com/2026/01/08/us-fish-wildlife-backtracks-on-colorado-wolves>; see also Letter from Brian Nesvik, Dir., U.S. Fish & Wildlife Serv., to Laura Clellan, Acting Dir., Colo. Parks & Wildlife (Dec. 18, 2025).

¹⁹¹ *2026 Annual Report*, *supra* note 31, at 2.

¹⁹² *Id.*

¹⁹³ See Colo. Rev. Stat. § 33-2-105.8 (2020); see also *Wolf Plan*, *supra* note 4, at 25 (detailing the operational objective to introduce 30 to 50 wild wolves over a three-to-five-year timeline to fulfill the statutory restoration directive); *2026 Annual Report*, *supra* note 31, at 2 (“It will likely be critical for the establishment of a self-sustaining wolf population in Colorado to have substantial translocation efforts (10-15 animals) for at least one, if not more, in additional years.”).

¹⁹⁴ See Mark L. Shaffer, *Determining Minimum Viable Population Sizes for Species Conservation*, 31 *Bioscience* 131 (1981) (establishing that small population strains increase extinction velocity); see also *Wolf Plan*, *supra* note 4, at 25 (incorporating these conservation biology tenets to mandate a baseline introduction of 30 to 50 wolves to ensure a self-sustaining population).

¹⁹⁵ See Russell Lande, *Risks of Population Extinction from Demographic and Environmental Stochasticity and Random Catastrophes*, 142 *Am. Naturalist* 911, 912 (1993); see also *Wolf Plan*, *supra* note 4, at 32 (incorporating

susceptible to random events, like disease outbreaks, droughts, or other drastic weather events.¹⁹⁶ Demographic instability is common in smaller populations, so a larger population is beneficial in case of a low birth year.¹⁹⁷ Human-caused pressures can also be exacerbated by a smaller population. Hunting, vehicle collisions, and habitat fragmentation pose greater risks to a population with fewer individuals.¹⁹⁸ Thus increasing wolf numbers through further reintroduction would help Colorado’s wolf population become self-sustaining.

Larger populations also help wolves establish stable packs, which, in turn, makes it easier for wildlife officials to monitor them and prevent conflicts.¹⁹⁹ Larger and more established populations are better suited to hunt natural native prey, reducing the likelihood of seeking out vulnerable livestock.²⁰⁰ Thus, these larger, steadier pack sizes reduce the potential of negative interference with livestock. These packs also facilitate effective monitoring because they are more stable and occupy a more predictable territory.²⁰¹

Given these considerations, a third round of releases would have advanced both CPW’s and the Service’s wolf-recovery goals and legal obligations. It was improper for the Service to impede those releases.

b. There was no legal basis for preventing capture operations in British Columbia.

The stated basis for the Service’s interference was also unlawful pretext. In ordering CPW to “cease and desist” its efforts to obtain wolves from British Columbia, the Service claimed that the 10(j) Rule prohibited sourcing wolves from outside the Northern Rockies population within

population ecology to indicate environmental randomness, such as disease outbreaks and severe winters, in population sustainability projections).

¹⁹⁶ *Wolf Plan*, *supra* note 4, at 32.

¹⁹⁷ See Shaffer, *supra* note 194, at 132 (1981) (explaining how demographic stochasticity renders small populations vulnerable to natural variations in annual birth rates); see also *Wolf Plan*, *supra* note 4, at 25 (factoring in demographic instability and potential low-reproduction years to justify a larger target release of 30 to 50 wolves).

¹⁹⁸ Lisette P. Waits et al., *Applications of Landscape Genetics to Connectivity Research in Terrestrial Animals*, in *Landscape Genetics: Concepts, Methods, and Applications* 199 (Niko Balkenhol et al. eds., 2015) (analyzing how fragmentation and vehicle strikes compound the extinction risk for smaller wildlife populations).

¹⁹⁹ See L. David Mech & Luigi Boitani, *Wolf Social Ecology*, in *Wolves: Behavior, Ecology, and Conservation* 1, 12 (2003) (analyzing how cohesive pack structures create predictable territorial behaviors); see also *Wolf Plan*, *supra* note 4, at 44 (noting that established pack dynamics allow wildlife officials to predict movements accurately, facilitating more efficient monitoring and proactive conflict-mitigation efforts).

²⁰⁰ Section III.B.1.b, above; Daniel R. MacNulty et al., *Influence of Group Size on the Success of Wolves Hunting Bison*, 9 PLoS ONE e112884, 4 (2014) (linking larger pack structures to increased proficiency in hunting native ungulates); see also U.S. Fish & Wildlife Serv., *Final Environmental Impact Statement: Wolf Restoration* 42 (2023).

²⁰¹ U.S. Fish & Wildlife Serv., *supra* note 200.

the United States.²⁰² However, the 10(j) Rule controls wolf management within Colorado, not where the donor population comes from.²⁰³ The Service’s novel claim of illegality—treating the 10(j) rule as a capture permit—contradicted the 10(j) rule’s true legal purpose.²⁰⁴

Furthermore, even if the rule did dictate capture activity, it does not purport to require that wolves be sourced from within the United States. The only mention of such geographic concerns appear in the rule’s preamble, referencing the Northern Rockies region as one proposed source of wolves and noting that wolves there are part of a metapopulation that extends into western Canada, i.e., British Columbia.²⁰⁵ But neither the preamble nor rule suggests, much less requires, that wolves must be sourced there. In fact, the environmental impact statement accompanying the rule expressly contemplated wolves being sourced elsewhere: “If donor wolves from the western United States are not available, another *possible* source of gray wolves for the Colorado reintroduction *may be* the wolf population in the western Great Lake states of Michigan, Minnesota, or Wisconsin . . . [which is] part of a larger metapopulation of wolves that extends into central and eastern Canada.”²⁰⁶ Thus, the 10(j) Rule does not, by its own terms, constrain capture activities of the British Columbia wolf population, and the Service expressly recognized when issuing the rule that CPW was not obligated to source wolves from the Northern Rockies states within the U.S.²⁰⁷

Indeed, the Service previously supported CPW obtaining wolves from British Columbia for its 2024–2025 capture operations.²⁰⁸ Because British Columbian wolves were not (and are not) listed under the ESA, no federal authorization was required to capture them there. Service

²⁰² See Letter from Brian Nesvik, Dir., U.S. Fish & Wildlife Serv., to Jeff Davis, Dir., Colo. Parks & Wildlife (Oct. 10, 2025) (interpreting the 10(j) permit parameters to explicitly ban the state from sourcing gray wolves outside of the Northern Rockies population).

²⁰³ 88 Fed. Reg. at 77036 (identifying “the entire State of Colorado” as the region to which the rule applies and designating “[a]ll gray wolves found in the wild within [that] boundary” as a nonessential, experimental population).

²⁰⁴ See generally 16 U.S.C. § 1539(j).

²⁰⁵ 88 Fed. Reg. at 77021 (“CPW *proposes* to release gray wolves obtained from the delisted NRM population (Idaho, Montana, eastern Oregon, eastern Washington, Wyoming) at multiple sites west of the Continental Divide.”) (emphasis added); *Id.* at 77022 (“CPW officials *plan* to capture wild gray wolves in cooperating States in the Western United States where wolves are federally delisted.”) (emphasis added); *id.* at 77023 (“The *preferred* donor population for the reintroduction of gray wolves to Colorado is the delisted NRM population . . . [which] is part of a larger metapopulation of wolves that encompasses all of Western Canada.”) (emphasis added).

²⁰⁶ U.S. Fish & Wildlife Serv., Final Environmental Impact Statement Colorado Gray Wolf 10(j) Rulemaking, at 4–36 (Sept. 2023) (emphasis added).

²⁰⁷ Furthermore, the Rocky Mountain wolf population is part of a larger metapopulation of wolves that encompasses all Western Canada, so the Service’s position was ecologically unsound as well. U.S. Fish & Wildlife Serv., *Species Status Assessment for the Gray Wolf (Canis lupus) in the Western United States* 14–16 (2023).

²⁰⁸ Memorandum of Understanding for the Reintroduction of Gray Wolves in Colo., U.S. Fish & Wildlife Serv. (Sept. 28, 2023) (confirming that no federal or ESA authorizations were required to capture or import gray wolves from British Columbia for state reintroduction operations).

officials previously supported the reintroduction operations in British Columbia.²⁰⁹ It was only in December 2025 when, under new leadership, the Service pivoted and began asserting that the proposed British Columbia capture operations violated the 10(j) Rule.²¹⁰

To the extent that the Service was concerned about compliance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora ('CITES'), that concern was likewise unfounded. The Canadian Wildlife Service granted permits to Colorado, confirming that the conditions for authorizing the capture and transport activities were fulfilled.²¹¹ These permits indicate that CPW's planned translocation efforts were legal, sustainable, traceable, and authorized in accordance with CITES.²¹²

In short, the Service identified no laws that would have been violated if CPW had proceeded with its proposed reintroduction efforts from British Columbia in the winter of 2025–26. The Service violated its own legal obligations under the ESA by using the 10(j) rule as pretext to thwart those efforts.

2. Continued federal interference with Colorado wolf management would create ineffectiveness and confusion.

Just as it was improper for the Service to thwart Colorado's 2025-26 reintroduction efforts, the Service should not (and legally cannot) impede Colorado's recovery efforts moving forward. Instead, the Service must support and facilitate those efforts, in accordance with its own species-recovery mandate under the ESA.

A federal takeover of the program is likewise unwarranted because (a) CPW has invested significant time and resources into its on-the-ground management programs, which are generally working and advancing species recovery; and (b) federal management primacy could, when paired with Colorado's robust, species-protective laws, create confusion and uncertainty.

²⁰⁹ Tracy Ross, *Documents show federal government OK'd Colorado's wolf plan before backtracking*, COLORADO SUN (Jan. 8, 2026), <https://coloradosun.com/2026/01/08/us-fish-wildlife-backtracks-on-colorado-wolves/>.

²¹⁰ *Id.*; see also Tracy Ross, *The Federal Government Is Scrutinizing Colorado's Wolf Program Again. Some Think It's a Trap to End Reintroduction*, COLORADO SUN (Apr. 10, 2026), <https://coloradosun.com/2026/04/10/the-federal-government-is-scrutinizing-colorados-wolf-program-again-some-think-its-a-trap-to-end-reintroduction>.

²¹¹ B.C. Ministry of Water, Land and Resource Stewardship & Colo. Parks & Wildlife, *Colorado Wolf Restoration 2025 Translocation Report 8 (2025)* ("The export of wolves from British Columbia to Colorado was permitted under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and administered by the Canadian Wildlife Service.").

²¹² Convention on International Trade in Endangered Species of Wild Fauna and Flora art. IV, ¶ 2, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 (mandating that an export permit for an Appendix II species may be granted only if the home state certifies that the translocation is not detrimental to the survival of the species and was executed in compliance with local wildlife protection laws).

a. Federal management would require a significant build-out of resources to match what CPW is already doing.

CPW is uniquely positioned to lead wolf management in Colorado. As discussed, CPW’s reintroduction and management of wolves under Proposition 114 aligns with the federal ESA’s recovery mandate and other species conservation goals. While strict federal oversight and/or primary management authority may be appropriate when states cannot or will not uphold the ESA’s species-recovery goals, that is not the situation here.²¹³

CPW has also built out a robust management program that the Service would be hard-pressed to match. That program—developed over the course of five-plus years of intensive effort—includes ongoing scientific study, robust tracking of individual wolves and packs, extensive public communication campaigns, and on-the-ground tools to reduce conflict between wolves and livestock.²¹⁴ There is no indication that the Service presently has the time, money, capacity, or ability to match CPW’s current management program. So, if the Service took over management of wolves in Colorado, it would, at least in the near term, likely be less effective at upholding CPW’s and the Service’s shared legal duty of restoring wolves. Given CPW’s legal and demonstrated commitment to recovering wolves in the state, it should retain primary management authority.

b. Federal management could cause confusion and management uncertainty because CPW will retain authority over take prohibitions.

If the Service takes over control of wolf management in Colorado, it could result in legal confusion over what forms of take are and are not allowed. That is because the ESA sets a floor, not ceiling, on take, allowing Colorado to prohibit forms of take that might otherwise be authorized under federal law.

Colorado’s Nongame, Endangered, or Threatened Species Conservation Act generally prohibits the take (i.e., killing and other forms of harm) of nongame, threatened, and endangered species.²¹⁵ CPW’s wolf-specific rules allow for certain forms of take but vest ultimate authority over those decisions with CPW; and those rules could be repealed or amended such that the blanket take prohibition applies.²¹⁶ State law also criminalizes the unauthorized killing of wolves.²¹⁷

²¹³ Compare Colo. Rev. Stat. § 33-2-105.8 (2025), with, e.g., *Western Watersheds Project v. U.S. Fish & Wildlife Serv.*, No. 9:24-cv-00010, slip op. at 15 (D. Mont. Aug. 25, 2025), and Wyo. Stat. Ann. § 23-1-101 (2025).

²¹⁴ *Wolf Plan*, *supra* note 4, at 12.

²¹⁵ Colo. Rev. Stat. §§ 33-2-104(3), 33-2-105(3)–(4).

²¹⁶ See generally 2 Colo. Code Regs. § 406-10:1001.

²¹⁷ Colo. Rev. Stat. §§ 33-6-109(1), (3)(a) (2025).

The ESA empowers CPW to establish and enforce wolf take prohibitions that are stricter than federal take prohibitions, without being federally preempted.²¹⁸ This potential for overlapping authority and contradictory rules could cause confusion. For example, local ranchers and livestock operators may assume—falsely—that more lax federal rules trump state requirements, potentially facing severe criminal penalties for noncompliance with Colorado law. Similarly, federal officials could not issue lethal take permits that state law forbids, creating a potential permitting and management quagmire. To avoid this confusion, CPW should retain authority over wolf management in Colorado.

IV. CONCLUSION

The ESA is clear: “all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of th[ose] purposes.”²¹⁹ Thus, the Service’s fundamental role in Colorado’s historic wolf restoration effort is to facilitate it, while providing a backstop in the event Colorado’s management is not sufficiently protective of wolves. The Service’s role is not to make Colorado’s restoration work harder, nor to elevate the interests of the livestock industry.

Because Colorado is working diligently and effectively toward advancing the ESA’s goals, it should retain primary management authority over its citizen-led wolf restoration initiative. The Service’s review of the program, if any, should evaluate only how additional refinements to the program—like stronger and clearer requirements for use of nonlethal control methods and greater transparency in compensation claim investigations—could further advance wolf recovery in Colorado.

Respectfully submitted by Earthjustice on behalf of:

Center for Biological Diversity

Humane World for Animals

Humane World Action Fund

Rocky Mountain Wolf Project

Western Watersheds Project

WildEarth Guardians

²¹⁸ 16 U.S.C. § 1535(f) (authorizing state take prohibitions that are more restrictive than federal take prohibitions).

²¹⁹ *Id.* § 1531(c)(1).