**COMPLETED PEER REVIEW**

**Peer Review Plan:** Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (*Canis lupus*) in Colorado

**Timeline of the Peer review (estimated):**

**Draft document to be disseminated:** February 2023

**Peer review to be initiated:** February 2023

**Peer review to be completed by:** April 2023

**Determination**: The U.S. Fish and Wildlife Service (Service) proposes to establish a nonessential experimental population (NEP) of the gray wolf (*Canis lupus*) in the State of Colorado, under section 10(j) of the Endangered Species Act of 1973, as amended (Act).

**About the Peer Review Process:**

In accordance with our July 1, 1994, peer review policy (59 FR 34270), the Service's August 22, 2016, Director's Memo on the Peer Review Process, and the Office of Management and Budget's December 16, 2004, Final Information Quality Bulletin for Peer Review, we will solicit independent scientific reviews of the information contained in our proposed rule to establish a nonessential experimental population of the gray wolf in the State of Colorado.

The U.S. Fish and Wildlife Service (Service) will request peer review from three or more independent experts. We will consider the following criteria when selecting peer reviewers:

- Expertise: The reviewer should have knowledge of or experience with the species or similar species biology.
- Independence: The reviewer should not be employed by the Service. Academic, consulting or government scientists should have sufficient independence from the Service if the government supports their work.
- Objectivity: The reviewer should be recognized by his or her peers as being objective, open-minded, and thoughtful. In addition, the reviewer should be comfortable sharing their knowledge and perspectives and openly identifying their knowledge gaps.
- Conflict of Interest: The reviewer should not have any financial or other interest that conflicts or that could impair their objectivity or create an unfair competitive advantage. If an otherwise qualified reviewer has an unavoidable conflict of interest, the Service may publicly disclose the conflict.

While expertise is the primary consideration, the Service will select peer reviewers (considering, but not limited to, these selections) that add to a diversity of scientific perspectives relevant to the proposed rule. We will not be providing financial compensation to peer reviewers. We will solicit reviews from at least three qualified experts. After completion

of the peer review and the rulemaking, we will make the peer reviewers' comments and conflict of interest forms available to the public.

The Service will provide each peer reviewer with information explaining their role and instructions for fulfilling that role, the proposed rule, and a list of citations as necessary. The purpose of seeking independent peer review is to ensure use of the best scientific and commercial information available and to ensure and to maximize the quality, objectivity, utility, and integrity of the information upon which the proposed rule is based. Peer reviewers will be advised that they are not to provide advice on policy. Rather, they should focus their review on identifying and characterizing scientific uncertainties. Peer reviewers will be asked to answer questions pertaining to the logic of our assumptions, arguments, and conclusions and to provide any other relevant comments, criticisms, or thoughts. Specific questions put to the reviewers include the following:

1. Is our description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species accurate?
2. Are there any significant oversights, omissions, or inconsistencies?
3. Are the conclusions we reach logical and supported by the evidence we provide?
4. Did we include all the necessary and pertinent literature to support our assumptions, arguments, and conclusions?
5. Are there additional considerations regarding the geographic boundary of the NEP, the adequacy of the proposed regulations for the NEP, or additional management that may be needed to address expanding gray wolf populations?

Peer reviewers will provide individual, written responses to the Service. Peer reviewers will be advised that their reviews, including their names and affiliations, will: (1) be included in the decisional record of our determinations (i.e., final rules or withdrawals); and, (2) be available to the public upon request once all reviews are completed. We will summarize and respond to the issues raised by the peer reviewers in the record supporting our recommendations.

**About Public Participation**

The peer review process will be initiated shortly. We strongly encourage that public comments on the approach of this peer review be submitted by February 24, 2023, in order to allow enough time for processing and consideration. However, we will accept comments on the peer review plan throughout the process.

**Contact**

For more information, contact Craig Hansen by telephone to 303–236–4749 or by email to craig_hansen@fws.gov.

REVIEWED AND APPROVED:

View results

Respondent

1 Anonymous

06:00
Time to complete

## Conflict of Interest Disclosure

1. ID Number (if provided in request email, otherwise leave blank)

2. Report or Rulemaking Name (provided in request email) *

Colorado gray wolf 10(j)

3. Point of Contact Email (the **@fws.gov** address provided in request email) *

craig_hansen@fws.gov

4. Your Full Name (First, Last) *

Dan Thompson

5. Telephone (work/professional) *

307-332-2688

6. Address (work/professional) *

260 Buena Vista Dr., Lander, WY 82520

7. Email Address (work/professional) *

daniel.thompson@wyo.gov

8. Current Employer *

Wyoming Game and Fish Department

## Instructions

It is essential that a peer reviewer used by the U.S. Fish and Wildlife Service as part of its peer review of proposed rules under the Endangered Species Act (ESA or Act) report any conflict of interest. For this purpose, the term "conflict of interest" means any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization. In those situations in which the Service determines that a conflict of interest is unavoidable we will publicly disclose the conflict of interest.

The term "conflict of interest" means something more than individual bias. There must be an interest that could be directly affected by your participation as a peer reviewer. Conflict of interest requirements are objective and prophylactic. They are not an assessment of one's actual behavior or character, one's ability to act objectively despite the conflicting interest, or one's relative insensitivity to particular dollar amounts of specific assets because of one's personal wealth. Conflict of interest requirements are objective standards designed to eliminate certain specific, potentially compromising situations from arising, and thereby to protect the individual, the Service, and the public interest. The individual and the Service should not be placed in a situation where others could reasonably question, and perhaps discount or dismiss, the information produced through the peer review simply because of the existence of conflicting interests.

## Instructions (continued)

The term "conflict of interest" applies only to current interests. It does not apply to past interests that have expired, no longer exist, and cannot reasonably affect current behavior. Nor does it apply to possible interests that may arise in the future but do not currently exist, because such future interests are inherently speculative and uncertain. For example, a pending formal or informal application for a particular job is a current interest, but the mere possibility that one might apply for such a job in the future is not a current interest.

The term "conflict of interest" applies not only to the personal interests of the individual but also to the interests of others with whom the individual has substantial common financial or other interests if these interests are relevant to the functions to be performed. Thus, in assessing an individual's potential conflicts of interest, consideration must be given not only to the interests of the individual but also to the interests of the individual's spouse and minor children, the individual's employer, the individual's business partners, and others with whom the individual has substantial common financial or other interests. Consideration must also be given to the interests of those for whom one is acting in a fiduciary or similar capacity (e.g., being an officer or director of a corporation, whether profit or nonprofit, or serving as a trustee).

Such interests could include an individual's stock holdings in excess of $10,000 in a potentially affected company or being an officer, director, or employee of the company. Serving as a consultant to the company could constitute such an interest if the consulting relationship with the company could be directly affected or is directly related to the subject matter of the regulatory process.

An individual's other possible interests might include, for example, relevant patents and other forms of intellectual property, serving as an expert witness in litigation directly related to the subject matter of the regulatory process, or receiving research funding from a party that would be directly affected by the regulatory process if the research funding could be directly affected or is directly related to the subject matter of the regulatory process and the right to independently conduct and publish the results of this research is limited by the sponsor. Consideration would also need to be given to the interests of others with whom the individual has substantial common financial interests -- particularly spouses, employers, clients, and business or research partners.

The following questions are designed to elicit information from you concerning possible conflicts of interest that are relevant to the functions to be performed by your peer review.

During your period of service in connection with the activity for which this form is being completed, any changes in the information reported, or any new information, which needs to be reported, should be reported promptly by written or electronic communication to the responsible staff officer.

## Employment

If the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent document

9. If you are employed or self-employed, could your current employment or self-employment (or your spouse's current employment or self-employment) be directly affected? *

No

10. To the best of your knowledge, could any financial interests of your (or your spouse's) employer or, if self-employed, your (or your spouse's) clients and/or business partners be directly affected? *

No

11. If you are an officer, director or trustee of any corporation or other legal entity, could the financial interests of that corporation or legal entity be directly affected? *

Not applicable

12. If you are a consultant (whether full-time or part-time), could there be a direct effect on any of your current consulting relationships? *

Not applicable

13. Regardless of the potential effect on the consulting relationship, do you have any current or continuing consulting relationships (including, for example, commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, serving as an expert witness in litigation, or providing services in exchange for honorariums and travel expense reimbursements) that are directly related to the subject matter of the possible government regulatory action or inaction? *

Yes

14. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

In response to #13; Wyoming Game and Fish is involved with analysis and litigation for ESA issues with the Fish and Wildlife Service and we work closely with the FWS on multiple issues especially with grizzly bears. This should not represent any conflict of interest but explaining the answer to question 13 as it is fairly nebulous.

## Employment (continued)

15. If you are or have ever been a U.S. Government employee (either civilian or military), to the best of your knowledge, are there any federal conflict of interest restrictions that may be applicable to your service in connection with this peer review? *

No

16. If you are a U.S. Government employee, are you currently employed by the Service? *

No

17. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Investment Interests

Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interest valued at less than $10,000), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

18. Do you or your spouse or minor children own directly or indirectly (e.g., through a trust or an individual account in a pension or profit-sharing plan) any stocks, bonds or other financial instruments or investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

19. Do you have any other significant financial investments or interests such as commercial business interests (e.g., sole proprietorships), investment interests (e.g., stock options), or personal investment relationships (e.g., involving parents or grandchildren) that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

20. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Property Interests

Taking into account real estate and other tangible property interests, as well as intellectual property (patents, copyrights, etc.) interests, if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

21. Do you or your spouse or minor children own directly or indirectly any such property interests that could be directly affected? *

No

22. To the best of your knowledge, do any others with whom you have substantial common financial interests (e.g., employer, business partners, etc.) own directly or indirectly any such property interests that could be directly affected? *

No

23. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Research Funding and Other Interests

Taking into account your research funding and other research support (e.g., equipment, facilities, industry partnerships, research assistants and other research personnel, etc.), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

24. Could the research funding and support for you or your close research colleagues and collaborators be directly affected, OR, if you have any research agreements for current or continuing research funding or support from any party whose financial interests could be directly affected, and such funding or support is directly related to the subject matter of the regulatory process, do such agreements significantly limit your ability to independently conduct and publish the results of your research? *

No

25. If you answered "Yes" to the question above, briefly describe the circumstances.

## Research Funding and Other Interests (continued)

26. Is the central purpose of the proposed rule for which this disclosure form is being prepared a critical review and evaluation of your own work or that of your employer? *

No

27. Do you have any existing professional obligations (e.g., as an officer of a scientific or engineering society) that effectively require you to publicly defend a previously established position on an issue that is relevant to the proposed rule? *

No

28. To the best of your knowledge, will your participation in this peer review process enable you to obtain access to a competitor's or potential competitor's confidential proprietary information? *

No

29. Could your service as a peer reviewer create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests? *

No

30. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

# [EXTERNAL] peer review

Daniel Thompson <daniel.thompson@wyo.gov>

Sun 4/23/2023 9:06 AM

To: Hansen, Craig <Craig_Hansen@fws.gov>

1 attachments (437 KB)

2023-03196_Peer Review4.18.23.docx;



Hello Craig,

Attached please find my peer-review. I ended up converting this am and putting this into track changes to specifically address any comments I had. I feel this is well written and incorporates what is needed for the determination, however I do feel that there could be additional information included regarding conflict potential with livestock as well as some other details included in the review. Feel free to contact me directly with any questions or if you seek any of the literature I may have mentioned to reference. Thanks and good luck!

DT

--
Dan J. Thompson, PhD
Large Carnivore Section Supervisor
Wyoming Game and Fish Dept
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Lander, WY 82520
(307) 332-2688
Daniel.Thompson@wyo.gov
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In addition, this proposed rulemaking would not apply on any Indian reservation land or in any other area in Idaho where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule would not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: February 10, 2023.

**Casey Sixkiller,**

*Regional Administrator, Region 10.*

[FR Doc. 2023–03415 Filed 2–16–23; 8:45 am]

BILLING CODE 6560–50–P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

### 50 CFR Part 17

**[Docket No. FWS–R6–ES–2022–0100; FXES11130600000–223–FF06E00000]**

**RIN 1018–BG79**

## Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Gray Wolf in Colorado

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule; availability of supplemental information.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to establish a nonessential experimental population (NEP) of the gray wolf (*Canis lupus*) in the State of Colorado, under section 10(j) of the Endangered Species Act of 1973, as amended (Act). The State of Colorado (Colorado Parks and Wildlife or CPW) requested that the Service establish an NEP in conjunction with their State-led gray wolf reintroduction effort. Establishment of this NEP would provide for allowable, legal, purposeful, and incidental taking of the gray wolf within a defined NEP area while concurrently providing for the conservation of the species. The geographic boundaries of the NEP would include the State of Colorado. The best available data indicate that reintroduction of the gray wolf into Colorado is biologically feasible and will promote the conservation of the species. We are seeking comments on this proposal and on our associated draft environmental impact statement (DEIS), prepared pursuant to the National Environmental Policy Act of 1969, as amended, which describes the potential alternatives for providing a regulatory framework for the State's reintroduction.

**DATES:** We will accept comments on this proposed rule or the DEIS that are received or postmarked on or before April 18, 2023. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date.

*Information Collection Requirements:* If you wish to comment on the information collection requirements in this proposed rule, please note that the Office of Management and Budget (OMB) is required to make a decision concerning the collection of information contained in this proposed rule between 30 and 60 days after publication of this proposed rule in the **Federal Register**. Therefore, comments should be submitted to the Service Information Collection Clearance Officer, U.S. Fish and Wildlife Service, (see ''Information Collection'' section below under **ADDRESSES**) by April 18, 2023.

**ADDRESSES:** You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov*. In the Search box, enter FWS–R6–ES–2022–0100, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R6–ES–2022–0100, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *https://www.regulations.gov*. This generally means that we will post any personal information you provide us (see Information Requested, below, for more information).

*Availability of supporting materials:* This proposed rule and the DEIS are available on *https://www.regulations.gov* at Docket No. FWS–R6–ES–2022–0100 and on the Service's website at *https://www.fws.gov/coloradowolf*. We will also post information regarding public meetings at this website. Hardcopies of the documents are also available for public inspection at the address shown in **FOR FURTHER INFORMATION CONTACT**. Additional supporting information that we developed for this proposed rule will be available on the Service's website, at *https://www.regulations.gov,* or both.

*Information Collection Requirements:* Send your comments on the information collection request to the Service Information Collection Clearance Officer, U.S. Fish and Wildlife Service, by email to *Info_Coll@fws.gov;* or by mail to 5275 Leesburg Pike, MS: PRB (JAO/3W), Falls Church, VA 22041–3803. Please reference ''OMB Control Number 1018-Gray Wolf'' in the subject line of your comments.

**FOR FURTHER INFORMATION CONTACT:** Nicole Alt, Field Supervisor, U.S. Fish and Wildlife Service, Colorado Ecological Services Field Office, 134 Union Boulevard, Suite 670, Lakewood, CO 80228; telephone 303–236–4773. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:**

### Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule.

We particularly seek comments concerning:

(1) The proposed geographic boundary of the NEP;

(2) Information pertaining to the conservation status of gray wolves and how it relates to the proposed reintroduction and rulemaking efforts;

(3) The adequacy of the proposed regulations for the NEP;

(4) Management flexibilities that could be added to the final rule to address expanding gray wolf populations; and

(5) Whether to allow lethal management of gray wolves that are

having a significant impact to ungulate populations, similar to the provisions in the 2005 final rule that established a northern Rocky Mountains (NRM) gray wolf nonessential experimental population (70 FR 1286, January 6, 2005).

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via *https://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov*. Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal.

**Peer Review**

In accordance with our Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities, which was published on July 1, 1994 (59 FR 34270), and the internal memorandum clarifying the Service's interpretation and implementation of that policy (Service in litt. 2016), we will seek the expert opinion of at least three appropriate independent specialists regarding scientific data and interpretations contained in this proposed rule. We will send copies of this proposed rule to the peer reviewers immediately following publication in the **Federal Register**. The purpose of such review is to ensure that our decisions are based on scientifically sound data, assumptions, and analysis. Accordingly, the final decision may differ from this proposal. As noted below under *Management Restrictions, Protective Measures, and Other Special Management* and *Means To Identify the Experimental Population* we are considering whether to allow lethal management in response to impacts to wild ungulate herds under specific circumstances, and revising the NEP area if necessary. We are seeking comments regarding both these issues.

**Previous Federal Actions**

Our November 3, 2020, final rule to remove the gray wolf from the Federal List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations at 50 CFR 17.11(h) provides a full summary of our previous Federal actions for the species (85 FR 69778). Please see that final rule for additional information and detail regarding our previous Federal actions for the gray wolf. Although the action of delisting gray wolves in that rule was vacated, the regulatory history summary on pages 69779 to 69784 presents an accurate account of the regulatory history of gray wolves under the Act. Below, we summarize the previous Federal actions for the species that are most relevant to this proposed action or were completed since the November 3, 2020, final rule.

The gray wolf was originally listed as a subspecies or as regional populations of subspecies in the lower 48 United States and Mexico. Early listings were under legislative predecessors of the Act—the Endangered Species Preservation Act of 1966 and the Endangered Species Conservation Act of 1969. Later listings were under the Endangered Species Act of 1973. In 1978, we published a rule reclassifying the gray wolf throughout the lower 48 United States and Mexico, subsuming the earlier listings of subspecies or regional populations of subspecies. The 1978 reclassification was undertaken to address changes in our understanding of gray wolf taxonomy and protect the species in the lower 48 United States and Mexico (43 FR 9607, March 9, 1978). Since that time, a long regulatory and legal history has resulted in two currently listed entities of gray wolves in the United States. These are: (1) *C. lupus* in Minnesota, listed as threatened, and (2) *C. lupus* wherever found in 44 U.S. States (''44-State entity''), and Mexico, listed as endangered (figure 1). In the United States, this includes: all of Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin; and portions of Arizona, New Mexico, Oregon, Utah, and Washington (figure 1). On April 2, 2009, we identified the Northern Rocky Mountains (NRM) gray wolf population as a distinct population segment and delisted that entity (74 FR 15123). The gray wolf is currently delisted in the NRM, which includes all of Idaho, Montana, and Wyoming, the eastern one-third of Oregon and Washington, and a small portion of north-central Utah (figure 1). Figure 1 does not depict historical range; see figure 2 for historical and current ranges.

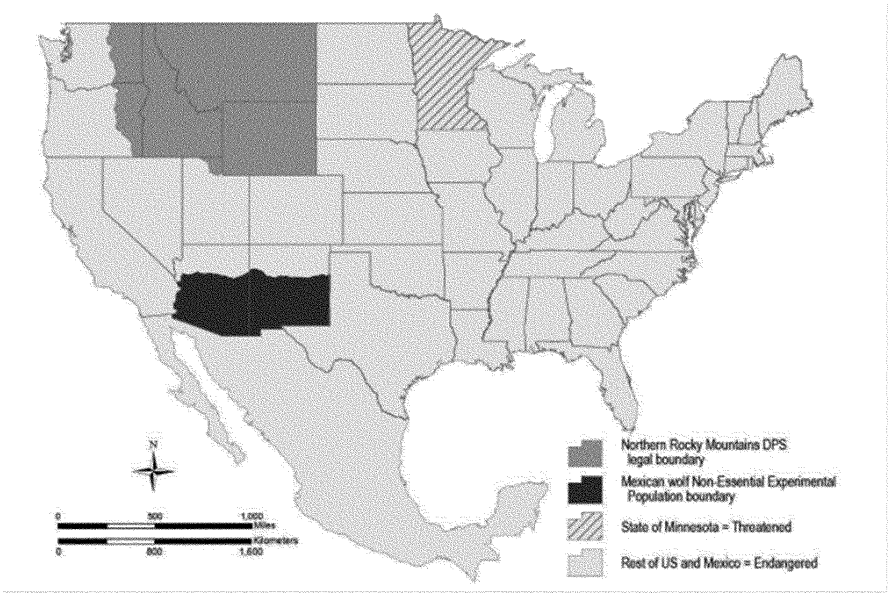


*Figure 1.* Current legal status of *C. lupus* under the Act in Minnesota, the 44-State entity wherever found, and Mexico. The former Northern Rocky Mountains distinct population segment (DPS) and the Mexican wolf nonessential experimental population (NEP) are not part of the currently listed entities. All map lines are approximations; see 50 CFR 17.84(k) for exact boundaries.

On November 3, 2020, we published the final rule to delist the two currently listed *C. lupus* entities under the Act (85 FR 69778). The rule became effective on January 4, 2021. On February 10, 2022, the U.S. District Court for the District of Northern California vacated the final rule, resulting in the reinstatement of the 44-State entity as endangered and the Minnesota entity as threatened (*Defenders of Wildlife* v. *U.S. Fish & Wildlife Serv.*, No. 21–CV–00344–JSW, 2022 WL 499838 (N.D. Cal. Feb. 10, 2022)) (figure 1, above). As a result, the gray wolf is listed as an endangered species under the Act in the State of Colorado and all or parts of 43 additional States. The List of Endangered and Threatened Wildlife in 50 CFR 17.11(h) does not currently reflect this status information. However, the entries on the List pertaining to the gray wolf will be corrected to reflect the current status of gray wolf before any final rule to this proposed rulemaking action is effective.

## Background and Biological Information

We provide detailed background information on gray wolves in the lower 48 United States in a separate Gray Wolf Biological Report (Service 2020, entire) and the 2020 final rule to delist the two currently listed *C. lupus* entities under the Act (85 FR 69778, November 3, 2020). Information in these documents is relevant to reintroduction efforts for gray wolves that may be undertaken in Colorado, and it can be found along with this rule at *https://www.regulations.gov* in Docket No. FWS–R6–ES–2022–0100 (see *Supplemental Documents*). We summarize relevant information from these documents below.

### *Species Description*

Gray wolves are the largest wild members of the canid (dog) family, with adults ranging in weight from 18 to 80 kilograms (40 to 175 pounds), depending on sex and geographic locale. Gray wolves are highly territorial, social animals that live and hunt in packs. They are well adapted to traveling fast and far in search of food, and to catching and eating large mammals. In North America, they are primarily predators of medium to large mammals, including deer, elk, and other species, and are efficient at shifting their diet to take advantage of available food resources (Service 2020, p. 6).

### *Historical and Current Range*

Gray wolves have a broad circumpolar range. In the lower 48 United States, range and number of gray wolves declined significantly during the 19th and 20th centuries primarily due to humans killing wolves through poisoning, unregulated trapping and shooting, and government-funded wolf extermination efforts (Service 2020, pp. 9–14). By the time subspecies were first listed under the Act in 1974, gray wolves had been eliminated from most of their historical range within the lower 48 United States. Outside of Alaska, wolves occurred in only two places within the lower 48 United States. An estimated 1,000 wolves persisted in northeastern Minnesota, and a small, isolated group of about 40 wolves occurred on Isle Royale, Michigan (Service 2020, pp. 12–14).

During the years since the species was reclassified in 1978, gray wolves within the lower 48 United States expanded in distribution (figure 2) and increased in number (Service 2020, p. 14). Gray wolves within the lower 48 United States now exist primarily in two large, stable or growing metapopulations in two separate geographic areas in the lower 48 United States—one in the

**Commented [DT1]:** Perhaps this will occur later but it will be good to direct prey availability in the area of reintroduction and current diet of NRM (as opposed to wolves in Great Lakes or areas with caribou etc.) Elk/wolf prey systems as well as interactions with other large carnivore species.

western Great Lakes area of the Eastern United States and one in the Western United States (Service 2020, p. 27). Subpopulations of gray wolves within each of these metapopulations are well-connected as evidenced by documented movements between States and high levels of genetic diversity (Service 2020, p. 27). The western Great Lakes metapopulation consists of more than 4,200 individuals broadly distributed across the northern portions of Michigan, Minnesota, and Wisconsin (Service 2020, p. 27). This metapopulation is also connected, via documented dispersals, to the large and expansive population of about 12,000–14,000 wolves in eastern Canada. As a result, gray wolves in the Great Lakes area do not function as an isolated metapopulation of 4,200 individuals in 3 States, but rather as part of a much larger ''Great Lakes and Eastern Canada'' metapopulation (Service 2020, pp. 27–28).

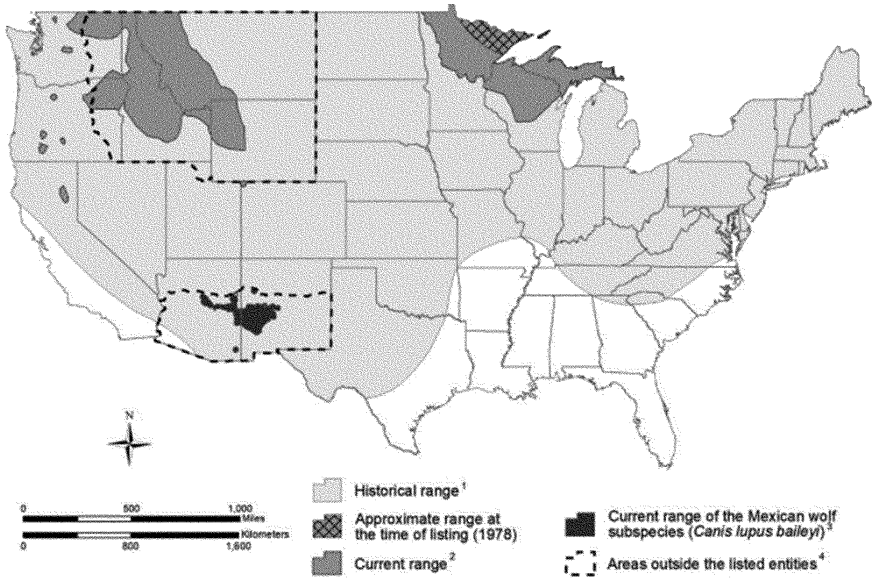


*Figure 2.* Historical range and current range (as of January 2020) of gray wolves (*Canis lupus*) in the lower 48 United States.
[1] Based on Nowak (1995)
[2] Based on State data.
[3] U.S. portion of range only.
[4] Northern Rocky Mountains distinct population segment (DPS) and Mexican wolf nonessential experimental population (NEP) area boundaries.

Gray wolves in the Western United States are distributed across the NRM and into western Oregon, western Washington, northern California, and most recently in northcentral Colorado (figure 2, above; Service 2020, p. 28). The Western United States metapopulation consisted of more than 1,900 gray wolves in 2015 (at least 1,880 in the NRM and at least 26 outside the NRM boundary), the final year of a combined northern Rocky Mountains wolf annual report (Service 2020, p. 28, appendix 2). Based on the most current abundance estimates of gray wolves, Idaho estimated 1,543 gray wolves inhabited the State as of August 2021, and Montana had an estimated 1,144 gray wolves at the end of 2021 (Parks et al. 2022, pp. 9–10). In addition, the most recent year-end minimum counts for 2021 indicated at least 314 gray wolves in Wyoming, 206 wolves in Washington, 175 wolves in Oregon, and 17 in California (California Department of Fish and Wildlife (CDFW) 2021, entire; Oregon Department of Fish and Wildlife (ODFW) 2022, p. 4; Washington Department of Fish and Wildlife (WDFW) et al. 2022, p. 13; Wyoming Game and Fish Department (WGFD) et al. 2022, p. 3).

Until recently, only lone wolves had been confirmed in Colorado beginning with a dispersing individual that died as a result of a vehicle collision in 2004. A disperser from Wyoming was first documented in north-central Colorado during the summer of 2019 and paired up with another wolf during the winter of 2020 (CPW 2021a, entire). This pair produced offspring in spring 2021, becoming the first documented reproductively active pack in Colorado in recent history. As of September 2022, this pack contains the only known wolves in Colorado, comprising seven individuals. This single pack does not meet the definition of a population of gray wolves used by the Service for previous NEP designations in the NRM (*i.e.,* two breeding pairs successfully raising at least two pups for 2 consecutive years; Service 1994, appendix 8). No evidence of reproduction in this pack has been documented in 2022. In January of 2020, CPW personnel also confirmed at least six wolves traveling together in Moffatt County in northwestern Colorado (Service 2020, p. 9). Later that year, ~~that group was down to a single individual~~CPW personnel documented only one wolf in that area, and, at present, there is no indication that any wolf or wolves remain in that

**Commented [DT2]:** This is somewhat misleading and likely something that will misdirect the actual numbers currently. The next paragraph should be combined and focused to give a more accurate representation of NRM wolves as well as bringing in the dispersal potential throughout western North America, realize this is focused on conterminous USA.

part of Colorado. As such, we do not consider any gray wolves currently found in Colorado to constitute a population.

*Life Cycle*

Gray wolves are highly territorial, social animals and group hunters, normally living in packs of 7 or less but sometimes attaining pack sizes of 20 or more wolves (Service 2020, p. 6). Wolves of both sexes reach sexual maturity between 1 and 3 years of age and, once paired with a mate, may produce young annually until they are over 10 years old. Litters are born from early April into May and can range from 1 to 11 pups but generally include 5 to 6 pups (Service 2020, p. 6). Normally a pack has a single litter annually, however, multiple litters have been documented in approximately 25 percent of packs annually in Yellowstone National Park (Stahler et al. 2020, p. 52). Offspring usually remain with their parents for 10–54 months before dispersing (reviewed by Mech and Boitani 2003, Jimenez et al. 2017).

*Habitat Use*

The gray wolf is highly adaptable and can successfully occupy a wide range of habitats provided adequate prey (primarily ungulates) exists and human-caused mortality is sufficiently regulated (Mech 2017, pp. 312–315). Wolf packs typically occupy and defend a territory of 33 to more than 2,600 square kilometers ($km^2$) (13 to more than 1,004 square miles ($mi^2$)), with territories tending to be smaller at lower latitudes (Mech and Boitani 2003, p. 163; Fuller et al. 2003, pp. 187–188). The large variability in territory size is likely due to differences in pack size; prey size, distribution, and availability; lag time in population responses to changes in prey abundance; and variation in prey vulnerability (*e.g.,* seasonal age structure in ungulates) (Mech and Boitani 2003, p. 163).

To identify areas of suitable wolf habitat in the conterminous United States, researchers have used models that relate the distribution of wolves to characteristics of the landscape. These models have shown the presence of wolves is correlated with prey availability and density, livestock density, road density, human density, land ownership, habitat patch size, and forest cover (Mladenoff et al. 1995, pp. 284–292; Mladenoff et al. 1999, pp. 41–43; Carroll et al. 2003, entire; Carroll et al. 2006, p. 542; Oakleaf et al. 2006, pp. 558–559; Hanley et al. 2018, pp. 6–8).

In the Western United States, habitat models have identified suitable wolf habitat in the northern Rocky Mountains, southern Rocky Mountains (including Colorado and Utah), the Cascade Mountains of Washington and Oregon, and a small portion of the northern Sierra Nevada (Bennett 1994, entire; Switalski et al. 2002, entire; Carroll et al. 2003, entire; Carroll et al. 2006, p. 542; Larsen and Ripple 2006, entire; Oakleaf et al. 2006, pp. 558–559; Maletzke et al. 2015, entire; Oregon Department of Fish and Wildlife 2015, entire; Ditmer et al. 2022, entire). Large blocks of suitable habitat have been identified in the central and southern Rocky Mountains but are currently unoccupied, with the exception of occasional dispersing wolves and the single group of seven wolves in north-central Colorado.

*Movement Ecology*

Gray wolves rarely disperse before 10 months of age, and most commonly disperse between 1–3 years of age (Gese and Mech 1991, p. 2949; Treves et al. 2009, entire; Jimenez et al. 2017, p. 589). Generally, by the age of 3 years, most wolves will have dispersed from their natal pack to locate social openings in existing packs or find a mate and form a new pack (Service 2020, p. 7). Dispersers may become nomadic and cover large areas as lone animals, or they may locate unoccupied habitats and members of the opposite sex to establish their own territorial pack (Jimenez et al. 2017, p. 589). Dispersal distances in North America typically range from 65 to 154 kilometers (km) (40 to 96 miles) (Jimenez et al. 2017, p. 585), although dispersal distances of several hundred kilometers are occasionally reported (Jimenez et al. 2017, p. 588). The ability to disperse long distances allows populations of gray wolves to quickly expand and recolonize vacant habitats provided rates of human-caused mortality are not excessive (*e.g.,* Mech 1995, Boyd and Pletcher 1999, Treves et al. 2009, Mech 2017, Hendricks et al. 2019). However, the rate of recolonization can be affected by the extent of intervening unoccupied habitat between the source population and newly colonized area, as Allee effects (reduced probability of finding a mate at low densities) are stronger at greater distances from source populations (Hurford et al. 2006, p. 250; Stenglein and Van Deelen 2016, entire).

*Causes of Decline and Threats*

Targeted governmental extirpation programs and ~~U~~unregulated, human-caused mortality was the primary factor that caused population declines of gray wolves across the lower 48 States during the late 1800s and early 1900s. Although there are some places wolves are not likely to persist long term due to high human or livestock densities, the regulation of human-caused mortality has been a primary factor contributing to increased wolf abundance and distribution in the lower 48 States. Regulation of human-caused mortality has significantly reduced the number of wolf mortalities caused by humans and, although illegal and accidental killing of wolves is likely to continue with or without the protections of the Act, at current levels those mortalities have had minimal impact on the abundance or distribution of gray wolves. The high reproductive potential of wolves, and their innate behavior to disperse and locate social openings or vacant suitable habitats, allows populations of gray wolves to withstand relatively high rates of human-caused mortality (Service 2020, pp. 8–9). See *Historical and Current Range* and *Habitat Use* sections, above, for additional information.

*Recovery Efforts to Date*

Following our 1978 reclassification of the species under the Act, our national wolf strategy focused on conservation of gray wolves in three regions: the western Great Lakes; the NRM; and Mexican wolves in the Southwest and Mexico. We drafted recovery plans and implemented recovery programs for gray wolves in these three regions (Service 1987, entire; Service 1992, entire; Service 2017, entire). The revised NRM Wolf Recovery Plan established recovery criteria for wolves in three recovery areas across Idaho, Montana, and Wyoming (Service 1987, entire), while the Recovery Plan for the Eastern Timber Wolf (Service 1992, entire) addressed populations of gray wolves in the upper Midwest. Mexican wolves have been listed separately as an endangered subspecies of gray wolf since 2015 and are not addressed in this proposed rule.

The currently listed entity of gray wolf, to which the proposed Colorado NEP belongs, includes all or parts of 44 States; this listed entity encompasses populations of gray wolves in the Great Lakes States of Michigan and Wisconsin as well as wolves outside the delisted NRM in the Western United States. We have not included gray wolves outside the NRM and western Great Lakes in any recovery plan. However, as noted above, the presence of gray wolves in California, Oregon, and Washington, as well as the single pack in Colorado, is a result of dispersal and recolonization from core populations in the NRM in addition to reproduction and dispersal from resident packs in these States and neighboring Canadian provinces.

While there are no Federal recovery plans addressing wolf recovery in

**Commented [DT3]:** Would be advantageous to address land use and livestock depredation and reality of wolves depredating livestock in areas they co-occur, models that fail to incorporate context of human use and livestock patterns overestimate biologically and socially suitable habitat for wolves once established in an area. Wolves are adaptable, fecund and can be prolific in prey rich habitats and as they expand into human-dominated landscapes conflict potential increases exponentially in the form of livestock depredation. This can be managed but needs to be fully addressed in this document.

**Commented [DT4]:** This has been readily documented for NRM, is the reason there are wolves in the Pacific Northwest and wolves currently in Colorado.

western States outside Idaho, Montana, and Wyoming, the States of California, Colorado, Oregon, Washington, and Utah have demonstrated a commitment to wolf conservation by developing management plans or codifying laws and regulations ~~to protect wolves~~serving as adequate regulatory mechanims (November 3, 2020, 85 FR 69778); this includes the passage of a voter-led initiative in Colorado calling specifically for the reintroduction of gray wolves to the western portion of the State (Colorado Revised Statute 33–2–105.8). At the end of 2021, 6 packs of gray wolves (totaling at least 43 wolves and 4 breeding pairs) were documented in western Washington where wolves are federally listed (WDFW et al. 2022, p. 16). In the western two-thirds of Oregon, where gray wolves are federally listed, a minimum of 31 wolves including at least 2 breeding pairs were distributed across 3 packs and 4 additional groups of 2 to 3 wolves at the end of 2021 (ODFW 2022, p. 5). Wolves originating from Oregon have also expanded their range into California where a minimum of 17 wolves in 3 packs were documented at the end of 2021 (CDFW 2021, entire).

In addition to gray wolves found in the western States outside of the delisted NRM population, the Great Lakes metapopulation, consisting of approximately 4,200 wolves, is broadly distributed across the threatened Minnesota population and wolves in Michigan and Wisconsin that are part of the 44-State listed entity (Service 2020, p. 27). These States have an established history of cooperating with and assisting in recovery efforts for gray wolves and have made a commitment, through legislative actions, to continue these activities. For additional information regarding State management plans in Minnesota and states comprising the 44-State entity, see our November 3, 2020, final rule to delist the two currently listed *C. lupus* entities under the Act (85 FR 69778). At present, both Minnesota and Wisconsin are in the process of updating their State wolf management plans.

The NRM Wolf Recovery Plan was approved in 1980 (Service 1980, p. i) and revised in 1987 (Service 1987, p. i). The recovery goal for the NRM was reevaluated and, when necessary, modified as new scientific information warranted (Service 1987, p. 12; Service 1994, appendices 8 and 9; Fritts and Carbyn 1995, p. 26; Bangs 2002, p. 1; 73 FR 10514, February 27, 2008; 74 FR 15123, April 2, 2009). The Service's resulting recovery goal for the NRM population of gray wolves was 30 or more breeding pairs, defined as an adult male and an adult female wolf that have produced at least 2 pups that survived until December 31 of the year of their birth during the previous breeding season (Service 1994), comprising at least 300 wolves equitably distributed among Idaho, Montana, and Wyoming for 3 consecutive years, with genetic exchange (either natural or, if necessary, agency managed) between subpopulations. To provide a buffer above these minimum recovery levels, each State was to manage for at least 15 breeding pairs and 150 wolves in midwinter (77 FR 55530, September 10, 2012, pp. 55538–55539; 74 FR 15123, April 2, 2009, p. 15132). For additional information on NRM wolf recovery goals, see 74 FR 15130–15135 (April 2, 2009) and references therein.

Wolves in the NRM distinct population segment (DPS) have recovered and were delisted. The NRM population achieved its numerical and distributional recovery goals at the end of 2000 (Service et al. 2008, table 4). The temporal portion of the recovery goal was achieved in 2002 when the numerical and distributional recovery goals were exceeded for the third successive year (Service et al. 2008, table 4). In 2009, we concluded that gray wolves in the NRM far exceeded recovery goals. We also concluded that the NRM population: (1) Had at least 45 reproductively successful packs and 450 individual wolves each winter (near the low point in the annual cycle of a wolf population); (2) was equitably distributed within the 250,000-km$^2$ (100,000-mi$^2$) area containing 3 areas of large core refugia (National Parks, wilderness areas, large blocks of remote secure public land) and at least 170,228 km$^2$ (65,725 mi$^2$) of suitable wolf habitat; and (3) was genetically diverse and had demonstrated successful genetic exchange through natural dispersal and human-assisted migration management between all 3 core refugia (74 FR 15123, April 2, 2009). Gray wolves in the NRM remain well above the recovery goals established for this region (see *Historical and Current Range* section, above).

*Reintroduction*

To date, purposeful reintroduction of gray wolves to Colorado has not occurred; current wolf occupancy in Colorado is the result of natural wolf dispersal from the NRM population (Service 2020, pp. 15–19, 28; see *Historical and Current Range* section, above). The reintroduction of gray wolves in Idaho and Wyoming in the 1990s contributed to achieving the recovery goals for the NRM population in 2002 (Service et al. 2008). For additional details on NRM reintroduction efforts, please see our biological report (Service 2020, entire) and the *Release Procedures* section in this document, below.

**Regulatory Framework**

Section 9 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the prohibitions afforded to threatened and endangered species. Section 9 of the Act prohibits take of endangered wildlife. ''Take'' is defined by the Act as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. Section 7 of the Act outlines the procedures for Federal interagency cooperation to conserve federally listed species and protect designated critical habitat. It mandates that all Federal agencies use their existing authorities to further the purposes of the Act by carrying out programs for the conservation of listed species. It also requires that Federal agencies, in consultation with the Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Section 7 of the Act does not affect activities undertaken on private land unless they are authorized, funded, or carried out by a Federal agency.

The 1982 amendments to the Act (16 U.S.C. 1531 *et seq.*) included the addition of section 10(j), which allows for populations of listed species planned to be reintroduced to be designated as ''experimental populations.'' The provisions of section 10(j) were enacted to ameliorate concerns that reintroduced populations will negatively impact landowners and other private parties, by 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. Under section 10(j) of the Act, and our implementing regulations at 50 CFR 17.81, the Service may designate a population of an endangered or threatened species that will be released within its probable historical range as an experimental population. The Service may also designate an experimental population for an endangered or threatened species outside of the species' probable historical range in extreme cases when the Director of the Service finds that the primary habitat of the species within its historical range has been unsuitably and irreversibly altered or destroyed. Under section 10(j) of the Act, we make a

**Commented [DT5]:** Not exactly sure how this is worded but "protect" is a preservationist word no longer applicable to wolf conservation.

**Commented [DT6]:** Would be beneficial to reiterate actual numbers documented at this time.

determination whether or not an experimental population is essential to the continued existence of the species based on best available science. Our regulations define an essential population as one whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild. All other experimental populations are to be classified as ''nonessential'' (50 CFR 17.80(b)).

We treat any population determined by the Secretary to be an experimental population as if we had listed it as a threatened species for the purposes of establishing protective regulations with respect to that population (50 CFR 17.82). The designation as an experimental population allows us to develop tailored ''take'' prohibitions that are necessary and advisable to provide for the conservation of the species. The protective regulations adopted for an experimental population will contain applicable prohibitions, as appropriate, and exceptions for that population, allowing us discretion in devising management programs to provide for the conservation of the species.

Section 7(a)(2) of the Act requires that Federal agencies, in consultation with the Service, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or adversely modify its critical habitat. For the purposes of section 7 of the Act, we treat an NEP as a threatened species when the population is located within a National Wildlife Refuge or unit of the National Park Service (50 CFR 17.83; see 16 U.S.C. 1539(j)(2)(C)(i)). When NEPs are located outside of a National Wildlife Refuge or National Park Service unit, for the purposes of section 7, we treat the population as proposed for listing and only sections 7(a)(1) (50 CFR 17.83) and 7(a)(4) (50 CFR 402.10) of the Act apply (50 CFR 17.83). In these instances, NEPs provide additional flexibility in managing the nonessential population because Federal agencies are not required to consult with us under section 7(a)(2). Section 7(a)(1) requires all Federal agencies to use their authorities to carry out programs for the conservation of listed species. Section 7(a)(4) requires Federal agencies to confer (rather than consult) with the Service on actions that are likely to jeopardize the continued existence of a species proposed to be listed. As a result, NEPs provide additional flexibility in managing the nonessential population.

Section 10(j)(2)(C)(ii) of the Act states that critical habitat shall not be designated for any experimental population that is determined to be nonessential. Accordingly, we cannot designate critical habitat in areas where we establish an NEP.

Before authorizing the release as an experimental population of any population (including eggs, propagules, or individuals) of an endangered or threatened species, and before authorizing any necessary transportation to conduct the release, the Service must find by regulation that such release will further the conservation of the species. In making such a finding the Service uses the best scientific and commercial data available to consider:

(1) Any possible adverse effects on extant populations of a species as a result of removal of individuals, eggs, or propagules for introduction elsewhere (see *Effects on Wild Populations,* below);

(2) The likelihood that any such experimental population will become established and survive in the foreseeable future (see *Likelihood of Population Establishment and Survival,* below);

(3) The relative effects that establishment of an experimental population will have on the recovery of the species (see *Effects of the NEP on Recovery Efforts,* below); and

(4) The extent to which the introduced population may be affected by existing or anticipated Federal or State actions or private activities within or adjacent to the experimental population area (see *Likelihood of Population Establishment and Survival,* below).

Furthermore, as set forth at 50 CFR 17.81(c), all regulations designating experimental populations under section 10(j) of the Act must provide:

(1) Appropriate means to identify the experimental population, including, but not limited to, its actual or proposed location, actual or anticipated migration, number of specimens released or to be released, and other criteria appropriate to identify the experimental population (see Proposed Experimental Population and Experimental Population Regulation Requirements sections, below);

(2) A finding, based solely on the best scientific and commercial data available, and the supporting factual basis, on whether the experimental population is, or is not, essential to the continued existence of the species in the wild (see *Is the Proposed Experimental Population Essential or Nonessential?* section, below);

(3) Management restrictions, protective measures, or other special management concerns for that population, which may include, but are not limited to, measures to isolate and/or contain the experimental population designated in the regulations from natural populations (see *Management Restrictions, Protective Measures, and Other Special Management,* below); and

(4) A process for periodic review and evaluation of the success or failure of the release and the effect of the release on the conservation and recovery of the species (see *Review and Evaluation of the Success or Failure of the NEP,* below).

Under 50 CFR 17.81(d), the Service must consult with appropriate State fish and wildlife agencies, local governmental entities, affected Federal agencies, affected Tribes, and affected private landowners in developing and implementing experimental population rules. To the maximum extent practicable, section 10(j) rules represent an agreement between the Service, the affected State and Federal agencies, affected Tribes, and persons holding any interest in land that may be affected by the establishment of an experimental population.

**Proposed Experimental Population**

We are proposing to designate this NEP at the request of CPW, to facilitate their planned reintroduction of gray wolves to the State per the requirements of Proposition 114 (now codified as Colorado Revised Statute 33–2–105.8), which directs the CPW Commission to take the steps necessary to reintroduce gray wolves to lands west of the Continental Divide by December 23, 2023.

*Proposed Reintroduction Areas and Release Sites*

The proposed NEP area is the entire State of Colorado. This scale is appropriate, given that CPW has proposed a discrete release area (figure 3), and gray wolves have high dispersal ability (Jimenez et al. 2017, p. 582). Furthermore, gray wolves released on the west side of the Continental Divide may move to locations beyond the western portion of the State, including east of the Continental Divide. Within the proposed statewide NEP designation, 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. Individual release sites will be located on private or State lands with high habitat suitability and low wolf–livestock conflict risk based on models developed by Ditmer et al. (2022). All release sites will be located west of the Continental Divide

**Commented [DT7]:** Would be beneficial to directly address how this designation works in instances of reintroduction by political means/ballot initiatives versus targeted efforts to translocate, augment reintroduce species as designated by the FWS or other management authority. This situation is diametrically different than natural recolonization or planned reintroduction efforts.

(Colorado Revised Statute 33–2–105.8), and north of U.S. Highway 50 (figure 3). CPW proposes to release a total of 10 to 15 wolves at a 50:50 sex ratio each year during winter for up to 3 consecutive years, although exact numbers and sex ratios may vary due to factors associated with capture from source populations (CPW 2021b, p. 24). After initial releases are completed, CPW will monitor the success of reintroduction efforts and document wolf abundance and distribution annually to evaluate progress toward meeting State wolf recovery objectives (CPW 2021b, p. 24).

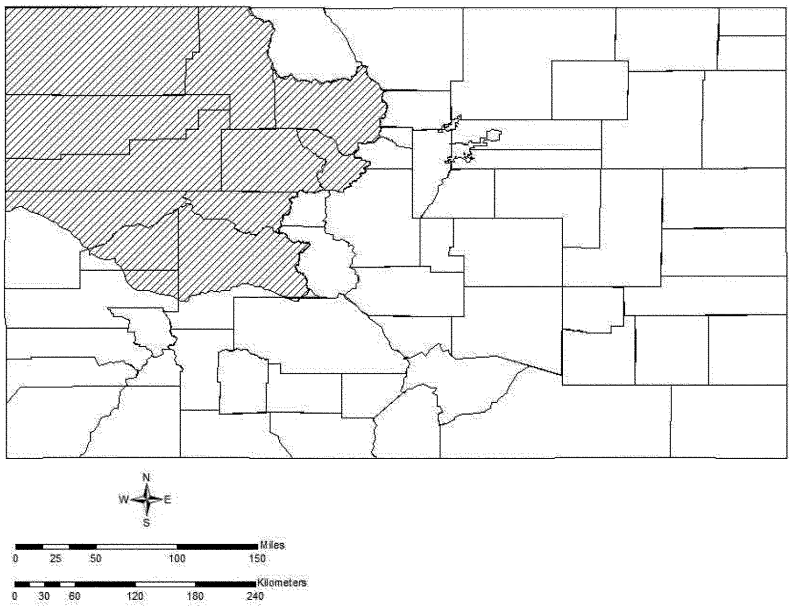


*Figure 3.* Map of the State of Colorado with county boundaries and the general area (crosshatched) for CPW's proposed initial (1–3 years) release site area for a nonessential experimental population (NEP) of gray wolves.

*Release Procedures*

CPW officials plan to capture wild gray wolves in cooperating States in the Western United States where wolves are federally delisted (Montana, Idaho, Wyoming, the eastern third of Washington and Oregon, and north-central Utah) using a combination of net gunning, helicopter darting, or trapping. Wolf captures will be conducted in accordance with approved protocols specific to each jurisdiction from which donor wolves are to come. Animals will be a mix of sex and age classes, with a sex ratio of 50:50 preferred, and ideally donor animals will be unrelated and of dispersing age (2 years and older). Each wolf selected for transport will be photographed, examined to evaluate condition and to obtain biological measurements and samples, tested for diseases, vaccinated for a wide variety of diseases, and treated for internal and external parasites. Additionally, wolves will be fitted with either a global positioning system (GPS) or a very high frequency (VHF) radio transmitter as well as other markers to assist with individual identification. Captured animals will be transported to Colorado in large, aluminum crates (similar to those used for wolf reintroduction in the NRM) by aircraft, ground transportation, or a mix of techniques, with a goal of releasing captured animals as quickly as possible to minimize time in captivity and capture-related stress. All animals will be "hard released" (released shortly after transport to reintroduction sites with no preconditioning; CPW 2021b, pp. 19–21) during winter (November through March), with no acclimation time between capture, transport, and release. The Final Report on Wolf Restoration Logistics Recommendations developed by the Colorado Wolf Restoration and Management Plan Technical Working Group (CPW 2021b, entire) provides additional details regarding the proposed release procedures.

*Reintroduction Site Management*

As noted in the *Proposed Reintroduction Areas and Release Sites* and *Release Procedures* sections above, the CPW plans to "hard release" gray wolves on State or private lands within a discrete release area (figure 3, above). Given that gray wolves released in this manner are more likely to disperse immediately from the release site rather than remain together at the site (CPW 2021b, entire), CPW does not plan to implement any special management practices at individual release sites. For additional information, please see the State of Colorado's Final Report on Wolf Restoration Logistics Recommendations (CPW 2021b, entire).

**How will the NEP further the conservation of the species?**

Under 50 CFR 17.81(b), before authorizing the release as an experimental population, the Service must find by regulation that such release will further the conservation of

**Commented [DT8]:** Success needs to be more clearly discussed and/or defined. I realize this is based on the state objectives but success will be evaluated at the state and federal level.

**Commented [DT10]:** This may be a procedural component but seems outside the scope of wildlife conservation and more related to domestication and husbandry.

**Commented [DT11]:** All captured/handled wolves should receive a Personal Identification Tag (PIT), and perhaps should be tattooed especially with the original release animals and any of the F1,F2 animals being handled.

**Commented [DT9]:** Based on current management objectives and numbers it would seem more appropriate to use wolves from MT and ID which are orders of magnitude above recovery criteria.

**Commented [DT12]:** Address any type of success with this and homing behavior of wolves in hard release situations.

the species. We explain our rationale for making our finding below. In making such a finding, we must consider effects on donor populations, the likelihood of establishment and survival of the experimental population, the effects that establishment of the experimental population will have on recovery of the species, and the extent to which the experimental population will be affected by Federal, State, or private activities.

*Effects on Wild Populations*

Our regulations at 50 CFR 17.81 require that we consider any possible adverse effects on extant populations of a species as a result of removal of individuals, eggs, or propagules for introduction elsewhere. The preferred donor population for the proposed reintroduction of gray wolves to Colorado is the delisted NRM population~~ found in Idaho, Montana, eastern Oregon, eastern Washington, and Wyoming~~. Gray wolves in these States are managed by State fish and wildlife agencies and Tribes. These wolves are an appropriate source for the Colorado reintroduction because of similarities in habitat and preferred prey; at least one member of the current pack in Colorado dispersed from the NRM population; and the NRM population reached numerical, spatial, and temporal recovery goals by the end of 2002 (Service 2020, p. 15; see the *Recovery Efforts to Date* section, above). The NRM wolf population continues to demonstrate stable to slightly increasing demographic trends with an estimated 1,543 wolves in Idaho as of August 2021 and slightly over 1,850 wolves in California, Montana, Oregon, Washington, and Wyoming at the end of 2021 (CDFW 2021, entire; ODFW 2022, p. 4; Parks et al. 2022, pp. 9–10; WDFW et al. 2022, p. 13; WGFD et al 2022, p. 3). Further, the NRM population is part of a larger metapopulation of wolves that encompasses all of Western Canada (Service 2020, p. 29). Given the demonstrated resilience and recovery trajectory of the NRM population and limited number of animals that will be collected, we expect negative impacts to the donor population to be negligible.

If donor wolves from the Western United States are not available, another possible source of gray wolves for the Colorado reintroduction may be from the wolf population in the western Great Lake States of Michigan, Minnesota, or Wisconsin. Wolves in Minnesota are currently listed as threatened under the Act, while wolves in Michigan and Wisconsin are listed as endangered. The Western Great Lakes region has nearly 4,400 wolves (Michigan Department of Natural Resources 2022, pp. 19–21; Minnesota Department of Natural Resources 2021, unpaginated; Wisconsin Department of Natural Resources 2022, p. 4) and are part of a larger metapopulation of wolves that extends into central and eastern Canada. As a result, the capture, transport, and reintroduction to Colorado of approximately 30 to 45 gray wolves over a 2-to-3-year period would have little to no effect on the wolf population in the western Great Lakes States of Michigan, Minnesota, or Wisconsin.

*Likelihood of Population Establishment and Survival*

In our findings for designation of an NEP, we must consider if the reintroduced population will become established and survive in the foreseeable future. In this section of the preamble, we address the likelihood that populations introduced into the proposed NEP will become established and survive. In defining the experimental population boundary, we attempted to encompass the area where the population is likely to become established in the foreseeable future. The term ''foreseeable future'' appears in the Act in the statutory definition of ''threatened species.'' However, the Act does not define the term ''foreseeable future.'' Similarly, our implementing regulations governing the establishment of an NEP under section 10(j) of the Act use the term ''foreseeable future'' (50 CFR 17.81(b)(2)) but do not define the term. However, our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term foreseeable future extends only so far into the future as we can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. While we use the term ''foreseeable future'' here in a different context (to determine the likelihood of population establishment and to establish boundaries for identification of the experimental population), we apply a similar conceptual framework. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant effects of release and management of the species and to the species' likely responses in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

For the purposes of this proposed rule, we define the foreseeable future for our evaluation of the likelihood of survival and establishment as approximately 10 years, the time horizon within which we can reasonably forecast population expansion of gray wolves in Colorado given the results of previous reintroduction efforts of gray wolves in the NRM. This timeframe is also similar to the timeframe for the expansion of wolves from the NRM into portions of the currently listed 44-State entity in California, Colorado, Oregon, and Washington (Service 2020, p. 28).

In evaluating the likelihood of establishment and survival of this proposed NEP in the foreseeable future, we considered the extent to which causes of extirpation in the NEP area have been addressed, habitat suitability and prey availability within the NEP area, and existing scientific and technical expertise and experience with reintroduction efforts. As discussed below, we expect that gray wolves will become established during this time span, given the species' adaptability and dispersal ability.

Addressing Causes of Extirpation Within the Experimental Population Area

Investigating the causes for the extirpation of gray wolves is necessary to understand whether we are sufficiently addressing threats to the species in the proposed NEP so that reintroduction efforts are likely to be successful. The International Union for the Conservation of Nature's Guidelines for Reintroduction and Other Conservation Translocations (2013, p. 4) identifies several criteria to consider prior to undertaking a reintroduction, including ''strong evidence that the threat(s) that caused any previous extinction have been correctly identified and removed or sufficiently reduced.'' Wolves depend on abundant prey (primarily ungulates) and can successfully colonize and occupy a wide range of habitats as long as human-caused mortality is adequately managed (Mech 2017, pp. 312–315). Historical wolf declines in Colorado resulted from purposeful efforts to eradicate the species by State and Federal authorities, primarily due to conflicts with domestic livestock production (Service 2020, pp. 9–14; see *Habitat Use* and *Causes of Decline and Threats* sections, above, for additional information). In 2004, CPW created a Wolf Management Working Group, largely in response to dispersal of wolves from the NRM population to

**Commented [DT20]:** There is precedent for "foreseeable future" with Greater Yellowstone Ecosystem grizzly bears, but they have a very different life history and are less fecund.

**Commented [DT19]:** This is short-sighted, moving a few wolves obviously would not impact the current Great Lakes wolves but would likely not have a probably chance of "success" and possible negative results for the current situation.

**Commented [DT13]:** See earlier comment as to "where" NRM wolves are taken.

**Commented [DT14]:**

**Commented [DT15]:** S

**Commented [DT16R15]:**

**Commented [DT17]:** It would make more biological sense to include the WY numbers (300+) to ID and MT as these wolves are are all highly interconnected and includes the wolves that occur in NPS settings in those states.

**Commented [DT18]:** These wolf populations are in much different ecosystems with different predator prey dynamics and suggest they are not considered for reintroduction to the state of Colorado. Furthermore, while both areas are in the designated historic range of the subspecies *C.l. nubilis*, the modern wolf in the Great Lakes has historic admixture with Eastern wolves (and to a lesser degree, coyotes). I don't believe other NRM states would be in favor of introducing an admixed gray wolf that would spread into the state and interbreed with western gray wolves. The potential may be small, but historic admixture with other canids by gray wolves from the Great Lakes could portend an increased risk of hybridization with other canids in the west (i.e., primarily coyotes). This is especially true in the early years of a reintroduction program that plans to hard-release reproductively mature individuals during the breeding season into an environment with severely limited opportunity to reproduce with conspecifics, yet an abundant source of non-conspecific coyotes. Gray wolves in the western US have no history of hybridizing with coyotes, and should be the target source for reintroduction to ensure genetic integrity of the wolf population in CO and surrounding states (WY and the Mexican Wolf DPS). Here's a very recent article about Great Lakes wolf genetics: https://academic.oup.com/mbe/article/40/4/msad055/7103497?login=false

Colorado and other western States. The working group developed a series of recommendations for wolf management in Colorado, including recognition of the ecological value of wolves and an intent to accept their presence in Colorado (Colorado Wolf Management Working Group 2004, p. 3). The recommendations of the Wolf Management Working Group were formally adopted by the Colorado Wildlife Commission in 2005 and were reaffirmed by the Colorado Parks and Wildlife Commission in 2016 (85 FR 69778, November 3, 2020; p. 69837).

Gray wolves are currently classified as an endangered species by the State of Colorado and can be taken only in self-defense. The State of Colorado expanded its conservation efforts for gray wolves through the passage of Proposition 114 (now codified as Colorado Revised Statute 33–2–105.8), which directs the CPW Commission to take the steps necessary to reintroduce gray wolves to lands west of the Continental Divide by December 23, 2023. Colorado Revised Statute 33–2–105.8 calls for the development and implementation of a Colorado Wolf Restoration and Management Plan, which is expected by late 2023. The plan follows a phased approach whereby the conservation status of gray wolves is linked with numerical and temporal population targets (CPW 2022a, p. 2). For additional information, please see CPW 2022a (entire). Purposeful eradication is no longer a tool used for wolf management. Based on the elimination of purposeful eradication, and the fact that gray wolves are protected under State and Federal laws, we do not anticipate the original cause of wolf extirpation from Colorado to be repeated.

Habitat Suitability/Prey Availability

Excluding occasional dispersing wolves and a single group of at least seven wolves presently in north-central Colorado, large blocks of gray wolf habitat in the central and southern Rocky Mountains are not currently occupied by gray wolves. Models developed to assess habitat suitability and the probability of wolf occupancy indicate that Colorado contains adequate habitat to support a population of gray wolves, although the number of wolves that the State could support varies among the models. One model estimated that the State could support between 407 and 814 wolves based on prey and habitat availability (Bennett 1994, pp. 112, 275–280).

Carroll et al. (2003, entire) examined multiple models to evaluate suitable wolf habitat, occupancy, and the probability of wolf persistence given various landscape changes and potential increases in human density in the southern Rocky Mountains, which included portions of southeastern Wyoming, Colorado, and northern New Mexico. Using a resource selection function (RSF) model developed for wolves in the Greater Yellowstone Ecosystem and projecting it to Colorado, Carroll et al. (2003, pp. 541–542) identified potential wolf habitat across north-central and northwest Colorado and the southwestern part of the State. RSF model predictions indicate that Colorado could support an estimated 1,305 wolves with nearly 87 percent of wolves occupying public lands in the State. Carroll et al. (2003, entire) also used a dynamic model that incorporated population viability analysis to evaluate occupancy of gray wolves and persistence based on current conditions as well as potential changes resulting from increased road and human densities in the future. The dynamic model based on current conditions predicted similar distribution and wolf population estimates as the RSF model; however, as predicted, as road and human densities increased in Colorado, the availability of suitable habitat and the estimated number of wolves that habitat could support declined (Carroll et al. 2003, pp. 541–543).

An analysis similar to that of Carroll et al. (2003, entire) was conducted for the entirety of the Western United States and indicated that high-quality wolf habitat exists in Colorado and Utah, but that wolves recolonizing Colorado and Oregon would be most vulnerable to landscape changes because these areas lack, and are greater distances from, large core refugia (Carroll et al. 2006, pp. 33–36). The authors proposed that habitat improvements, primarily in the form of road removal or closures, could mitigate these effects (Carroll et al. 2006, p. 36). Switalski et al. (2002, pp. 12–13) and Carroll et al. (2003, p. 545) also cautioned that model predictions may be inaccurate because they did not account for the presence of livestock and the potential use of lethal removal to mitigate conflicts, which may affect the likelihood of establishment of gray wolves as well as their year-to-year survival and distribution on the landscape.

Wolves can successfully occupy a wide range of habitats provided adequate prey exists (Mech 2017). Wolves in the Western United States rely on habitats containing large prey such as mule deer, elk, and moose (Smith et al. 2010, entire). CPW manages wild ungulate populations, such as elk and mule deer, using herd management plans, which establish population objective minimums and maximums for each ungulate herd in the State (CPW 2020, entire). The herd management plans consider both biological and social factors when setting herd objective ranges (CPW 2020, entire). Similar to mule deer populations in other western States, mule deer in Colorado have declined due to a multitude of factors since the 1970s to a statewide population estimate of 433,100 animals in 2018, which was well below the minimum statewide population objective of 500,450 (CPW 2020, entire). In 2018, of 54 mule deer herds in the State, 23 were below their population objective minimum with the western part of the State being the most affected. In contrast, elk populations in Colorado were stable in 2018 with a winter population estimate of 287,000 elk (CPW 2020, entire). Although 22 of 42 elk herds are above the maximum population objective, the ratio of calves per 100 cows (a measure of overall herd fitness) has declined in some southwestern herd units, and research has been initiated to determine potential causes. Moose are not native to Colorado, so to create hunting and wildlife viewing opportunities, CPW transplanted moose to the State beginning in 1978 and has since transplanted moose on four other occasions through 2010. In 2018, the moose population was estimated at 3,200 animals and continues to increase as moose expand into new areas of the State.

In summary, while deer and elk numbers are down from their peak populations in some parts of Colorado, they still number in the hundreds of thousands of individuals, and the State is actively managing populations to meet objectives (CPW 2020, entire). In addition, as of the latest estimates, elk numbers exceed their population objectives in 22 of 42 herds (CPW 2020, p. 9). Introduced moose provide an additional potential food resource for wolves in some parts of the State. Therefore, wolf habitat and prey are suitable and abundant within the proposed NEP area and would support population establishment and survival.

Reintroduction Expertise/Experience/Track Record

Conservation efforts to reintroduce gray wolves to the NRM began in 1995, with the reintroduction of wolves to portions of Idaho and Wyoming. Following their release, wolves rapidly increased in abundance and distribution in the region due to natural reproduction and the availability of

**Commented [DT23]:** This will be a primary area of contention as wolves will impact naïve prey populations for several generations will prey species adapt behaviorially to the reintroduction of an apex predator.

**Commented [DT21]:** If necessary there are additional stipulations in place that disallow use of foothold traps and other techniques involved in wolf eradication efforts as well as the cessation of poisoning efforts which were likely the main contributor to large carnivore reductions and localized exptirpati

**Commented [DT22]:** Again this appears to be minimized throughout. The reality of livestock depredation needs to be addressed, both from the impact to local producers and from the reality of necessary lethal removal of depredating wolves. This is not a perceived circumstance of wolves in North America it is real, it can be managed and mitigated but needs to be fully realized especially in this circumstance of reintroduction.

high-quality, suitable wolf habitat in the NRM. Between 1995 and 2008, populations of gray wolves in the NRM increased an average of 24 percent annually, reaching 1,655 wolves by the end of 2008 (Service et al. 2016, table 6b), while total mortality averaged approximately 16 percent annually between 1999 and 2008 (Service et al. 2000–2009, entire). Wolf numbers and distribution in Idaho, Montana, and Wyoming stabilized after 2008 as suitable habitat became increasingly saturated (74 FR 15123, April 2, 2009; p. 15160).

Between 2009 and 2015, Idaho, Montana, and Wyoming began to manage wolves with the objective of reversing or stabilizing population growth while continuing to maintain populations well above Federal recovery targets for the NRM population (depending upon the Federal status of wolves at that time; see 85 FR 69778, November 3, 2020; pp. 69779–69782). During this time period, States began to use public harvest as a management tool to achieve State-specific management objectives. As a result, during those years when legal harvest occurred, total wolf mortality in the NRM increased to an average of 29 percent of the minimum known population (Service et al. 2010–2016, entire), while population growth declined to an average of approximately 1 percent annually (Service et al. 2010–2016, entire). Although this mortality rate was significantly higher than mortality rates during the previous decade, the NRM population demonstrated an ability to sustain itself, consistent with scientific information demonstrating that the species' reproductive and dispersal capacity can compensate for a range of mortality rates (Service 2020, pp. 8–9). As of 2015, the final year of a combined NRM wolf count at the end of federally required post-delisting monitoring in Idaho and Montana, wolves in the NRM remained well above minimum recovery levels with a minimum known population of 1,704 wolves distributed across Idaho, Montana, and Wyoming. An additional 177 wolves were documented in the NRM portions of Oregon and Washington at the end of 2015. Wolves in the NRM continue to remain above minimum recovery levels, demonstrating availability of technical expertise to successfully reintroduce gray wolf populations. For more information regarding the success of reintroduction efforts in the NRM, please see the *Recovery Efforts to Date* section, above.

Based on our demonstrated ability to reintroduce and successfully establish wolves to the NRM that reached recovery goals, the availability of habitat suitability and prey availability in the proposed reintroduction area (see *Habitat Suitability/Prey Availability* section, above), the demonstrated resiliency of gray wolves in the United States, and the ongoing development of a comprehensive Gray Wolf Restoration and Management plan in Colorado, the best available scientific data indicate that the reintroduction of gray wolves into suitable habitat in Colorado supports the likely success of establishment and survival of the reintroduced population, and the proposed experimental population has a high likelihood of becoming established within the foreseeable future.

*Effects of the NEP on Recovery Efforts*

We are proposing to designate an experimental population of gray wolf in Colorado to support CPW's planned effort to reintroduce gray wolves to the State of Colorado, and to further the conservation of the currently listed 44-State entity. CPW developed a draft Gray Wolf Restoration and Management Plan for the reintroduction and management of gray wolves in the State, with the goal of restoring the species to Colorado in a phased approach to the point where it no longer needs protection under State statute (CPW 2022a, entire). This management plan focuses on the primary threat to gray wolves, which is human-caused mortality (*e.g.,* Fuller et al. 2003, Mech 2017). We anticipate the State's plan will be finalized in the spring of 2023.

As noted in the *Recovery Efforts to Date* section, above, populations of gray wolves in the 44-State listed entity number more than 4,500 individuals and occupy portions of California, Michigan, Minnesota, Oregon, and Washington (Service 2020, pp. 27–28). Although gray wolves are present in Colorado, they do not currently meet our definition of a population. Reintroduction efforts in Colorado will provide additional redundancy for the 44-State listed entity. Redundancy is the ability for the species to withstand catastrophic events, for which adaptation is unlikely, and is associated with the number and distribution of populations. Representation is the ability of a species to adapt to changes in the environment and is associated with its ecological, genetic, behavioral, and morphological diversity. If successful, the reintroduction in the NEP would improve redundancy by increasing the number of populations at the southern extent of the currently occupied range and representation by increasing the ecological diversity of the habitats occupied by the listed entity. For these reasons, reintroduction efforts undertaken by CPW would increase the redundancy and representation, and hence viability, of the currently listed 44-State entity (*e.g.,* Smith et al. 2018).

Previous NEP designations have conserved and recovered gray wolves in other regions of the United States, particularly in the NRM. Additional management flexibility, relative to the mandatory prohibitions covering nonessential experimental species under the Act, is expected to help address local, State, and Tribal concerns about wolf-related conflicts in Colorado, similar to those experienced in other NRM States. Addressing these concerns proactively may result in greater human acceptance of gray wolves and other species of concern. Based on past modeling efforts, it has been estimated that Colorado could biologically support approximately 400 to 1,200 wolves (Bennett 1994, pp. 112, 275–280; Carroll et al. 2006, p. 33), but due to social constraints that could limit the distribution of wolves in the state (Ditmer et al. 2022, p. 12), the total number of wolves Colorado could support may be slightly lower. Nonetheless, this action will contribute to the conservation of the listed entity by increasing redundancy and representation.

*Actions and Activities in Colorado That May Affect Introduced Gray Wolves*

A large proportion of Colorado is composed of publicly owned Federal lands (approximately 36 percent; Congressional Research Service 2020). Public lands include National Forests, National Parks, National Monuments, and National Wildlife Refuges, which comprise approximately 63 percent of all public lands in Colorado. In addition, the Bureau of Land Management manages approximately 35 percent of public land in Colorado, much of which is located in the western portion of the State where reintroduction efforts for gray wolves will take place (figure 3). Although much of this public land is largely unavailable and/or unsuitable for intensive development and contains an abundance of wild ungulates, livestock grazing does occur on public lands in Colorado, which may increase the potential for mortality of gray wolves from lethal control of chronically depredating packs. However, in both Minnesota and the northern Rocky Mountains, lethal control of depredating wolves has had little effect on wolf distribution and abundance (Service 2020 p. 22; 85 FR 69778, November 3, 2020; p. 69842).

**Commented [DT24]:** Use actual numbers of what recocvery is and what the real numbers are. The levels of mortality in MT and ID are still resulting in wolf population SEVERAL hundred above minimum recovery criteria.

Humans sparsely inhabit most of the NEP area containing suitable habitat for gray wolves. However, the NEP area contains human infrastructure and activities that pose some risk to success of the NEP. Risks include wolves killed as a result of mistaken identity, accidental capture during animal damage control activities, and high-speed vehicular traffic. Human-caused mortality includes both controllable and uncontrollable sources of mortality. Controllable sources of mortality are discretionary, can be limited by the managing agency, and include permitted take, ~~sport~~ hunting, and direct agency control. Sources of mortality that will be difficult to limit, or may be uncontrollable, occur regardless of population size and include things such as natural mortalities, illegal take, and accidental deaths (*e.g.,* vehicle collisions, capture-related mortalities) (85 FR 69778, November 3, 2020). The biggest risks likely include illegal take of wolves and individuals hit by motor vehicles. Accidental mortality caused by vehicle collisions are uncontrollable, but are not anticipated to be a significant cause of mortality. However, if population levels and controllable sources of mortality are adequately regulated, the life-history characteristics of wolf populations provide natural resiliency to high levels of human-caused mortality (85 FR 69778, November 3, 2020). In conjunction with previous reintroduction efforts, implementation of this proposed rule, if finalized would reflect continuing success in recovering gray wolves through longstanding cooperative and complementary programs by a number of Federal, State, and Tribal agencies. In particular, the stakeholder engagement process developed by CPW in support of its Gray Wolf Restoration and Management Plan development is broadly based and includes a diverse array of stakeholders in the State, which has helped to address potential adverse effects to gray wolves through Federal, State, or private actions. Therefore, Federal, State, or private actions and activities in Colorado that are ongoing and expected to continue are not likely to have significant adverse effects on gray wolves within the proposed NEP area.

**Experimental Population Regulation Requirements**

Our regulations at 50 CFR 17.81(c) include a list of what we should provide in regulations designating experimental populations under section 10(j) of the Act. We explain what our proposed regulations include and provide our rationale for those regulations, below.

*Means To Identify the Experimental Population*

Our regulations require that we provide appropriate means to identify the experimental population, which may include geographic locations, number of individuals to be released, anticipated movements, and other information or criteria. The proposed Colorado NEP area encompasses the entire State. As discussed below, we conclude that after initial releases, any gray wolves found in Colorado will, with a high degree of likelihood, have originated from and be members of the NEP. However, we recognize that absent identifying tags or collars, it may be very difficult for members of the public to easily determine the origin of any individual gray wolf. Therefore, we propose to use geographic location to identify members of the NEP. As such, any wolf within the State of Colorado will be considered part of the NEP regardless of its origin. Similarly, any wolf outside of the State will take on the status of that location. For example, a wolf moving from Wyoming into Colorado will take on the NEP status, whereas a wolf moving from Colorado into Wyoming will take on a not-listed status, or endangered status if it moves into any other adjacent State.

Although a single pack of wolves occurred in Colorado as of October 2022, this single pack does not constitute a population (see *Historical and Current Range* section, above). While an adult female wolf dispersed from Wyoming to Colorado in 2019 to form half of the first reproductively active pack in the State in recent history, the origins of her mate are unknown. It is likely the male dispersed from the Greater Yellowstone area (approximately 480 kilometers (300 miles) north and east of their current location), but his exact origin is uncertain (CPW 2021a, entire). The mean dispersal distance of male wolves in the NRM is 98.1 km (60 miles) (Jimenez et al. 2017, p. 585). The nearest known pack in Wyoming is more than 200 km (124 miles) from the Colorado border, which is more than two times the average dispersal distance for gray wolves. In addition, gray wolves in most of Wyoming, outside of the wolf trophy game management area, are considered predators and can legally be killed with no limit on such take. Wolf packs are unlikely to persist in portions of Wyoming where they are designated as predatory animals (85 FR 69778, November 3, 2020).

~~Despite these challenges~~As has been previously documented, it is possible that gray wolves dispersing from the NRM population could successfully enter the NEP. However, these movements would likely be infrequent given the NEP's distance from existing populations, given the difficulty of dispersal across most of Wyoming, and the normal dispersal distances for gray wolves. Additionally, the small numbers of individuals likely to occupy the NEP following the release and the sizable distances between populations makes any potential interaction between individuals or a merging of populations highly unlikely. Further, even if gray wolves from the NRM or other populations were to disperse into the NEP, the presence of one or a few individual dispersing gray wolves would not constitute a population, as described above. Therefore, gray wolves reintroduced into Colorado will be wholly geographically separate from the delisted portion of the NRM population as well as the remainder of the currently listed 44-State entity. Based on this geographic separation, we conclude that any gray wolves found in Colorado after the initial release will, with a high degree of likelihood, be members of the NEP; therefore, we conclude that geographic location is an appropriate means to identify members of the NEP.

As noted in the *Release Procedures* section, above, CPW plans to fit individual animals reintroduced to the proposed Colorado NEP with GPS collars or a mix of GPS and VHF collars, with GPS preferred in the early stages of the reintroduction effort. Reintroduced wolves fitted with radio telemetry collars and other identifiable marks prior to release will enable CPW to determine if animals within Colorado are members of the reintroduced NEP, and not extant wolves from other populations (*e.g.,* the delisted NRM population). However, as reintroduced wolves begin to reproduce and disperse from Colorado packs, wolf abundance and distribution will increase in Colorado and the ability to capture and mark a high proportion of the population will decline. Given the challenges associated with marking a high number of wolves as the population increases and the distance from known packs in Wyoming and other populations of gray wolves, we will consider all gray wolves found in the State of Colorado to be members of the NEP.

Although CPW and the Service determined that there is no existing population of wolves in the proposed NEP area that would preclude reintroduction and establishment of an experimental population in the State (see definition of wolf population in *Historical and Current Range* section, above), both agencies will continue to

**Commented [DT25]:** Disagree, this needs to be cited as to how either of thise minimal forms of mortality could be considered a risk of any kind.

**Commented [DT26]:** Critical point and good to clarify

**Commented [DT29]:** If NEP is all of state this would be unnecessary, suggest the rationale be stated as it is to monitor efficacy of release and movement/dispersal of released animals.

**Commented [DT27]:** Not sure the meaning of this, his original capture in Wyoming is known, I guess the actual den this animal was born in is unknown but this is adding unnecessary vagueness?

**Commented [DT28]:** Not sure the importance of this other to bash something that the FWS has always disagreed with?

monitor for the presence of any naturally recolonizing wolves. If a naturally recolonizing population of wolves is discovered in the proposed Colorado NEP area prior to release, the Service will exclude that geographic area where the natural recolonizing wolves occur from the NEP area to ensure the reintroduced wolves are wholly separate geographically from non-experimental wolves. Any naturally recolonizing population of wolves would be considered endangered under the Act.

*Is the Proposed Experimental Population Essential or Nonessential?*

When we establish experimental populations under section 10(j) of the Act, we must determine whether or not that population is essential to the continued existence of the species. This determination is based solely on the best scientific and commercial data available. Our regulations (50 CFR 17.80(b)) state that an experimental population is considered essential if its loss would be likely to appreciably reduce the likelihood of survival of that species in the wild. We are proposing to designate the population of gray wolves in Colorado as nonessential for the following reason.

Populations of gray wolves within the 44-State listed entity include the Great Lakes metapopulation and growing populations in California, Oregon, and Washington. Multiple large, growing or stable metapopulations of gray wolves inhabiting separate and ecologically diverse areas ensure that the survival of the listed species does not rely on any single population. Therefore, the loss of the Colorado NEP would not be likely to appreciably reduce the likelihood of survival of the species in the wild, and we find that the Colorado NEP is not essential to the continued existence of the species.

*Management Restrictions, Protective Measures, and Other Special Management*

We have included management measures to address potential conflicts between wolves and humans and wolves and domestic animals. Management of the nonessential experimental population would allow reintroduced wolves to be hazed, killed, or relocated by the Service or our designated agent(s) for domestic animal depredations. Under special conditions, the public could harass or kill wolves attacking livestock (defined below). We have also requested input on whether to allow lethal management of gray wolves that are having a significant impact to ungulate populations. If allowed for the purpose of ungulate management, authorization for removal of wolves would require a science-based determination that an unacceptable impact to a wild ungulate herd has occurred and that removal of gray wolves would not impede wolf conservation.

As the lead agency for reintroduction efforts for gray wolves in Colorado, CPW will coordinate with the Service on releases, monitoring, and other tasks as needed to ensure successful reintroduction of the species to the State. Definitions pertaining to special management provisions are listed below:

*Designated agent*—Federal, State, or Tribal agencies authorized or directed by the Service may conduct gray wolf management consistent with this rule.

The State of Colorado and Tribes within the State with wolf management plans also may become designated agents by submitting a request to the Service to establish an MOA under this proposed rule. Once accepted by the Service, the MOA may allow the State of Colorado or Tribes within the State to assume lead authority for wolf conservation and management within their respective jurisdictions and to implement the portions of their State or Tribal wolf management plans that are consistent with this proposed rule. The Service oversight (aside from Service law enforcement investigations) under an MOA is limited to monitoring compliance with this proposed rule, issuing written authorizations for wolf take on reservations without wolf management plans, and an annual review of the State or Tribal program to ensure consistency with this proposed rule. Under either a cooperative agreement or an MOA, no management outside the provisions of this proposed rule is allowed unless additional public comment is solicited and this rule is modified accordingly.

*Domestic animals*—Animals that have been selectively bred over many generations to enhance specific traits for their use by humans, including for use as pets. This includes livestock (as defined below) and dogs.

*Incidental take:* Experimental population rules contain specific prohibitions and exceptions regarding the taking of individual animals under the Act. These rules are compatible with most routine human activities in the proposed NEP area (*e.g.,* resource monitoring, invasive species management, and research; see How Will the NEP Further the Conservation of the Species? above). Section 3(19) of the Act defines ''take'' as ''to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.'' ''Incidental take'' is further defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. If we adopt this section 10(j) rule as proposed, management of the NEP would allow employees of the Service and designated agents acting on our behalf to intentionally take gray wolves under certain circumstances. See table 1 below for additional details on incidental take of gray wolves within the proposed NEP area.

*Intentional harassment*—The deliberate and pre-planned harassment of wolves, including by less-than-lethal munitions that are designed to cause physical discomfort and temporary physical injury but not death.

*Interagency consultation*—For purposes of section 7(a)(2) of the Act, section 10(j) of the Act and our regulations (at 50 CFR 17.83) provide that nonessential experimental populations are treated as species proposed for listing under the Act except on National Park Service and National Wildlife Refuge System lands, where they are treated as threatened species for the purposes of section 7(a)(2) of the Act. We intend to address our section 7(a)(2) consultation obligations for gray wolves within units of the National Wildlife Refuge system in Colorado through a programmatic intra-Service consultation prior to finalizing this proposed rule and will coordinate with the National Park Service to address section 7(a)(2) obligations on any National Park Service units in Colorado.

*In the act of attacking*—The actual biting, wounding, grasping, or killing of livestock or dogs, or chasing, molesting, or harassing by wolves that would indicate to a reasonable person that such biting, wounding, grasping, or killing of livestock or dogs is likely to occur at any moment.

*Landowner*—An owner or lessee of private land, or their immediate family members, or the owner's employees, contractors, or volunteers who are currently employed to actively work on that private land. In addition, the owners (or their employees or contractors) of livestock that are currently and legally grazed on that private land and other leaseholders on that private land (such as outfitters or guides who lease hunting rights from private landowners), are considered landowners on that private land for the purposes of this regulation. Private land, under this proposed rule, also includes all non-Federal land and land within Tribal reservations. Individuals legally

**Commented [DT30]:** Interesting, outfitters will have substantial localized fiduciary impacts from reintroduced wolves

using Tribal lands in the State of Colorado with wolf management plans are considered landowners for the purposes of this proposed rule.

*Livestock*—Cattle, sheep, pigs, horses, mules, goats, domestic bison, and herding and guarding animals (alpacas, llamas, donkeys, and certain breeds of dogs commonly used for herding or guarding livestock). Livestock excludes dogs that are not being used for livestock guarding or herding.

*Livestock Producer*—A person that is actively engaged in farming/ranching and that receives a substantial amount of total income from the production of livestock.

*Non-injurious*—Does not cause either temporary or permanent physical damage or death.

*Opportunistic harassment*—Harassment without the conduct of prior purposeful actions to attract, track, wait for, or search out the wolf.

*Private land*—All land other than that under Federal Government ownership and administration and including Tribal reservations.

*Problem wolves*—Wolves that we or our designated agents confirm to have attacked any other domestic animals twice within a calendar year are considered problem wolves for purposes of agency wolf control actions.

*Public land*—Federal land such as that administered by the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management, USDA Forest Service, Bureau of Reclamation, Department of Defense, or other agencies with the Federal Government.

*Public land permittee*—A person or that person's employee who has an active, valid Federal land-use permit to use specific Federal lands to graze livestock or operate as an outfitter or guiding business that uses livestock. This definition does not include private individuals or organizations who have Federal permits for other activities on public land such as collecting firewood, mushrooms, antlers, Christmas trees, or logging, mining, oil or gas development, or other uses that do not require livestock. In recognition of the special and unique authorities of Tribes and their relationship with the U.S. Government, for the purposes of this proposed rule, the definition includes Tribal members who legally graze their livestock on ceded public lands under recognized Tribal treaty rights.

*Remove*—Place in captivity, relocate to another location, or kill.

*Research*—Scientific studies resulting in data that will lend to enhancement of the survival of gray wolves.

*Rule*— ''This rule'' in the regulatory text refers to the proposed NEP regulations.

*Wounded*—Exhibiting scraped or torn hide or flesh, bleeding, or other evidence of physical damage caused by a wolf bite.

TABLE 1—ALLOWABLE FORMS OF TAKE FOR GRAY WOLVES IN THE PROPOSED COLORADO NEP AREA

| Take provision | Description of provision in the proposed experimental population rule |
|---|---|
| Take in defense of human life | Any person may take a wolf in defense of the individual's life or the life of another person. The unauthorized taking of a wolf without demonstration of an immediate and direct threat to human life may be referred to the appropriate authorities for prosecution. |
| Agency take of wolves determined to be a threat to human life and safety. | The Service, or our designated agents, may promptly remove (that is, place in captivity or kill) any wolf determined by the Service or designated agent to be a threat to human life or safety. |
| Opportunistic harassment | Anyone may conduct opportunistic harassment of any gray wolf in a non-injurious manner at any time. Opportunistic harassment must be reported to the Service or our designated agent within 7 days. |
| Intentional harassment | After the Service, or our designated agent, has confirmed wolf activity on private land, on a public land grazing allotment, or on a Tribal reservation, the Service or our designated agent may issue written take authorization valid for not longer than 1 year to any landowner or public land permittee to intentionally harass wolves in a nonlethal, injurious manner. The harassment must occur in the area and under the conditions as specifically identified in the written take authorization. Intentional harassment must be reported to the Service or a designated agent within 7 days. |
| Taking wolves ''in the act of attacking'' livestock on PRIVATE land. | Consistent with State or Tribal requirements, any landowner may take (injure or kill) a gray wolf in the act of attacking (wounding, harassing, molesting, or killing) livestock or dogs (working or pet) on their private land. Any wolf taken in the act must be reported to the Service or our designated agent within 24 hours. The carcass and surrounding area must not be disturbed in order to preserve physical evidence that the livestock or dogs were recently attacked by a wolf or wolves. The Service or our designated agent must be able to confirm that the livestock or dog were wounded, harassed, molested, or killed by a wolf or wolves. The taking of any wolf without such evidence may be referred to the appropriate authorities for prosecution. |
| Taking wolves ''in the act of attacking'' livestock on PUBLIC land. | Consistent with State or Tribal requirements, any livestock producer and public land permittee who is legally using public land under a valid Federal land-use permit may take a gray wolf in the act of attacking their livestock on the person's allotment or other area authorized for their use without prior written authorization. The Service or our designated agent must be able to confirm that the livestock or dogs were wounded, harassed, molested, or killed by a wolf or wolves. The carcass of any wolf taken and the area surrounding it should not be disturbed to preserve physical evidence that the take was conducted according to this proposed rule. Any person legally present on public land may immediately take a wolf that is in the act of attacking the individual's stock animal or dog, provided conditions noted in taking of wolves in the act on private land are met. Any take or method of take on public land must be consistent with the rules and regulations on those public lands. Any lethal or injurious take must be reported to the Service or a designated agent within 24 hours. |

**Commented [DT32]:** This word is something large carnivore managers have attempted to move away from, chronic conflict or something along those lines has less anthropomorphism.

**Commented [DT31]:** What about hunting dogs? (thinking hounds for cougar hunting).

**Commented [DT33]:** RELOCATE IS DIFFERENT THAN REMOVE IN MOST NOMENCLATURE FOR CONSERVTION OF LARGE CARNIVORES. Suggest including relocate as another defined term and relegate removal to place in captivity or kill.

**Commented [DT34]:** I did not evaluate this table from a scientific basis, suggest reliance on current verbiage and nomenclature and use success and failures of past reintroduction effort in NRM to guide principles listed here in regards to adequately dealing with conflict and impacts to ungulates, real and perceived.

TABLE 1—ALLOWABLE FORMS OF TAKE FOR GRAY WOLVES IN THE PROPOSED COLORADO NEP AREA—Continued

| Take provision | Description of provision in the proposed experimental population rule |
|---|---|
| Additional taking by private citizens on their PRIVATE LAND. | At the Service's or our designated agents' direction, the Service or designated agent may issue a ''shoot on-sight'' written take authorization of limited duration (45 days or less) to a landowner or their employees to take up to a specified (by the Service or our designated agent) number of wolves on their private land if: (1) The landowner has had at least one depredation by wolves on livestock that has been confirmed by the Service or our designated agent within the last 30 days; and (2) the Service or our designated agent has determined that problem wolves are routinely present on the private land and present a significant risk to the health and safety of livestock; and (3) the Service or our designated agent has authorized lethal removal of wolves from that same private land. These authorizations may be terminated at any time once threats have been resolved or minimized. Any lethal or injurious take must be reported to the Service or a designated agent within 24 hours. |
| Additional taking by grazing permittees on PUBLIC LAND | At the Service's or our designated agents' direction, the Service or designated agent may issue a ''shoot on-sight'' written take authorization of limited duration (45 days or less) to a public land grazing permittee to take up to a specified (by the Service or our designated agent) number of wolves on that permittee's active livestock grazing allotment if: (1) The grazing allotment has had at least one depredation by wolves on livestock that has been confirmed by the Service or our designated agent within the last 30 days; and (2) the Service or our designated agent has determined that problem wolves are routinely present on that allotment and present a significant risk to the health and safety of livestock; and (3) the Service or our designated agent has authorized lethal removal of wolves from that same allotment. These authorizations may be terminated at any time once threats have been resolved or minimized. Any take or method of take on public land must be consistent with the rules and regulations on those public lands. Any lethal or injurious take must be reported to the Service or a designated agent within 24 hours. |
| Agency take of wolves that repeatedly depredate livestock. | The Service or our designated agent may carry out harassment, nonlethal control measures, relocation, placement in captivity, or lethal control of problem wolves. The Service or our designated agent will consider: (1) Evidence of wounded livestock, dogs, or other domestic animals, or remains of livestock, dogs, or domestic animals that show that the injury or death was caused by wolves, or evidence that wolves were in the act of attacking livestock, dogs, or domestic animals; (2) the likelihood that additional wolf-caused losses or attacks may occur if no control action is taken; (3) evidence of unusual attractants or artificial or intentional feeding of wolves; and (4) evidence that animal husbandry practices recommended in approved allotment plans and annual operating plans were followed. |
| Incidental take ..... | Any person may take a gray wolf if the take is incidental to an otherwise lawful activity, if reasonable due care was practiced to avoid such taking, and such taking was reported within 24 hours. (The Service may allow additional time if access is limited.) Shooting a wolf as a result of mistaking it for another species is not considered accidental and may be referred to the appropriate authorities for prosecution. |
| Permits for recovery actions that include take of gray wolves. | Permits are available and required, except as otherwise allowed by this proposed rule, for scientific purposes, enhancement of propagation or survival, educational purposes, or other purposes consistent with the Act (50 CFR 17.32). |
| Additional taking provisions for agency employees and our designated agent. | Any Service employee or our designated agent may take a gray wolf from the NEP: (1) For take related to the release, tracking, monitoring, recapture, and management for the NEP; (2) to aid or euthanize sick, injured, or orphaned wolves or transfer to a licensed veterinarian for care; (3) to dispose of a dead specimen; (4) to salvage a dead specimen that may be used for scientific study; (5) to aid in law enforcement investigations involving wolves (collection of specimens for necropsy, etc.); or (6) to remove wolves with abnormal physical or behavioral characteristics, as determined by the Service or our designated agent, from passing on or teaching those traits to other wolves. |

*Review and Evaluation of the Success or Failure of the NEP*

CPW plans to use radio transmitters, remote cameras, surveys of roads and trails to document wolf sign, and other monitoring techniques to document wolf reproductive success, abundance, and distribution in Colorado post-release. This information will be summarized in an annual report by CPW that describes wolf conservation and management activities that occurred in Colorado each calendar or biological year to evaluate progress toward achieving the State of Colorado's downlisting and recovery criteria. The annual report will be due annually to the Service by June 30th and posted on CPW's website. The annual report may include, but not be limited to: post-release wolf movements and behavior; wolf minimum counts or abundance estimates; reproductive success and recruitment; territory use and distribution; cause-specific wolf mortalities; and a summary of wolf conflicts and associated management activities to minimize wolf conflict risk. For additional details, please see CPW 2021b (entire) and the *Release Procedures* section, above.

The Service will evaluate Colorado's wolf reintroduction and management program in an annual summary report. Additionally, 5 years after the last reintroductions are completed, the

**Commented [DT35]:** Aerial and ground observation – radio marked individuals in packs can allow for census of packs depending on the ground attributes and availability of pilots/personnel

Service will evaluate whether the wolf population is meeting the State's recovery goals and conservation of the species. During this evaluation, we will assess the reintroduction program and coordinate with CPW if it is determined that modifications to reintroduction protocols are necessary. Five years after the reintroductions is a reasonable timeline for this evaluation because it would mirror the minimum post-delisting monitoring period used to evaluate the success of management programs after species have achieved recovery. It would also provide a suitable period to evaluate wolf population growth and abundance in order to assess progress toward achieving the State of Colorado's recovery goals, while concurrently minimizing wolf-related conflicts in the State. If modifications to wolf monitoring and management activities are needed, the Service will coordinate closely with CPW to ensure progress toward achieving recovery goals while concurrently minimizing wolf-related conflicts in Colorado.

*Other Considerations*

Above, we considered potential effects of the release on wild populations of the delisted NRM potential donor populations. Although not required under our regulations, we also considered potential effects of the release on the Mexican wolf. The number of gray wolves in Colorado could continue to grow and expand, which could increase the likelihood that gray wolves in Colorado disperse far enough south to encounter Mexican wolves. The timing and extent of any potential future contact are uncertain and difficult to project, but if contact were to occur, interbreeding could be a concern for the Mexican wolf, depending on its state of recovery at the time. If gray wolves come to occupy Mexican wolf recovery areas, these physically larger wolves are likely to dominate smaller Mexican wolves and quickly occupy breeding positions, as will their hybrid offspring. Hybrid population(s) thus derived will not contribute towards recovery because they will significantly threaten integrity of the listed entity (Odell et al. 2018, entire). However, potential inbreeding would be unlikely to have significant effects on the gray wolf, given the narrow geographic range in which such contact would likely occur relative to the species' overall range.

**Findings**

Based on the best scientific and commercial data available (in accordance with 50 CFR 17.81), we find that releasing gray wolves into the State of Colorado with the regulatory provisions in this proposed rulemaking will further the conservation of the species in the currently listed 44-State entity. The NEP status is appropriate for the introduced population; the potential loss of the experimental population would not appreciably reduce the likelihood of the survival of the species in the 44-State listed entity since more than 4,600 wolves are distributed across at least 6 different States in the Western United States and the western Great Lakes.

**Required Determinations**

*Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order (E.O.) 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this proposed rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The Executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996; 5 U.S.C. 601 *et seq.*), whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare, and make available for public comment, a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities. We certify that, if finalized, this proposed rule would not have a significant economic effect on a substantial number of small entities. The following discussion explains our rationale.

This proposed rule is modeled after previous NEP designations in Idaho, Montana, and Wyoming that contributed to the recovery of gray wolves while allowing for the control and management of wolves that caused conflicts and economic impacts on livestock producers. The majority of gray wolves in the Western United States are part of the NRM population, which is no longer protected under the Act. Despite increased incidences of human-caused mortality in the NRM population after delisting, this population is stable to increasing, and wolves from this population have readily dispersed to other States, including Colorado (Service 2020, pp. 14–19; 85 FR 69778, November 3, 2020).

The State of Colorado has recognized the utility of NEP designations in reintroducing gray wolves while addressing the concerns of local, State, and Tribal governments, as well as private entities, and engaged in an extensive stakeholder outreach process to develop a State management plan with broad-based support (CPW 2022b). This process, which involved a Stakeholder Advisory Group comprising a diverse array of stakeholders such as agricultural producers, hunting guides, wolf conservation advocates, and other interests and a Technical Working Group comprising gray wolf experts, assisted in the formulation of an impact-based management matrix and the overall Colorado Gray Wolf Management and Restoration Plan.

The reduced restrictions on taking problem wolves (see definition above under *Management Restrictions, Protective Measures, and Other Special Management*) in this proposed rule, relative to endangered species that receive the full protections of sections 7 and 9 of the Act, will make the management of wolves easier and more effective, thus reducing the economic losses that result from depredation of wolves on livestock and guard animals and dogs. Furthermore, a State program to compensate livestock producers who experience livestock losses caused by wolves is being developed and will be implemented upon CPW Commission

**Commented [DT36]:** Based on previous planning discussions it would behoove the Service to provide further detail how this would not jeapordize the current status of Mexican gray wolf, this seems to minimize the potential for commingling.

**Commented [DT37]:** Very good, this is very important.

approval. As a point of reference, compensation for livestock losses in Montana in 2021 totaled $103,815.95 (Parks et al. 2022, p. 19), and compensation in Wyoming for the same period totaled $208,124.00 (WGFD et al. 2022, pp. 23–24). The potential effect on livestock producers in western States is very small, but more flexible wolf management will provide benefits to stakeholders and livestock producers by providing options to protect assets.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*):

(1) This proposed rule would not ''significantly or uniquely'' affect small governments. We have determined and certify pursuant to the Unfunded Mandates Reform Act, that, if adopted, this rulemaking would not impose a cost of $100 million or more in any given year on local or State governments or private entities. A small government agency plan is not required. Small governments would not be affected because the proposed NEP designation would not place additional requirements on any city, county, or other local municipalities.

(2) This proposed rule would not produce a Federal mandate of $100 million or greater in any year (*i.e.,* it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act). This proposed NEP designation for gray wolves in Colorado would not impose any additional management or protection requirements on the States or other entities.

*Takings (E.O. 12630)*

In accordance with Executive Order 12630, this proposed rule will not have significant implications concerning taking of private property by the Federal Government. This proposed rule will substantially advance a legitimate government interest (conservation of a listed species) and will not present a bar to all reasonable and expected beneficial use of private property. Because of the regulatory flexibility provided by NEP designations under section 10(j) of the Act, we believe that the increased flexibility in this proposed rule and State or Tribal lead wolf management will reduce regulatory restrictions on private lands and will result in minor positive economic effects for a small percentage of livestock producers.

*Federalism (E.O. 13132)*

In accordance with Executive Order 13132, this proposed rule will not have significant federalism effects. This proposed rule will not have substantial direct effects on the States, on the relationship between the States and the Federal Government, or on the distribution of power and responsibilities among the various levels of government. CPW requested that we undertake this rulemaking to support the conservation of wolves in the 44-State entity and in Colorado and to provide increased take authority to resolve wolf conflicts, which we believe will assist with conservation of the species. No intrusion on State policy or administration is expected; roles or responsibilities of Federal or State governments will not change; and fiscal capacity will not be substantially affected. This proposed rule operates to maintain the existing relationship between the States and the Federal Government and is being undertaken at the request of CPW. We have endeavored to cooperate with CPW and other State agencies in the preparation of this proposed rule. Therefore, this proposed rule does not have significant federalism effects or implications to warrant the preparation of a federalism assessment pursuant to the provisions of Executive Order 13132.

*Civil Justice Reform (E.O. 12988)*

In accordance with Executive Order 12988 (February 7, 1996, 61 FR 4729), the Office of the Solicitor has determined that this proposed rule would not unduly burden the judicial system and would meet the requirements of sections (3)(a) and (3)(b)(2) of the Order.

*Paperwork Reduction Act*

This proposed rule contains existing and new collections of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. We will ask OMB to review and approve the new information collection requirements contained in this rulemaking related to the establishment of an NEP of the gray wolf (*Canis lupus*) in the State of Colorado, under section 10(j) of the ESA. OMB has previously approved the information collection requirements associated with permitting requirements associated with native endangered and threatened species, and experimental populations, and assigned OMB Control Number 1018–0094, ''Federal Fish and Wildlife Permit Applications and Reports—Native Endangered and Threatened Species; 50 CFR parts 10, 13, and 17'' (expires January 31, 2024).

Experimental populations established under section 10(j) of the Act, as amended, require information collection and reporting to the Service. We will collect information on the gray wolf NEP to help further the recovery of the species and to assess the success of the reintroduced populations. There are no forms associated with this information collection. The respondents notify us when an incident occurs, so there is no set frequency for collecting the information. Other Federal agencies provide us with the vast majority of the information on experimental populations under cooperative agreements for the conduct of the recovery programs. However, the public also provides some information to us. The proposed new information collection requirements identified below require approval by OMB:

1. *Appointment of designated agent*—A designated agent is an employee of a Federal, State, or Tribal agency that is authorized or directed by the Service to conduct gray wolf management. A prospective designated agent submits a letter to the Service requesting designated agent status. The letter includes a proposal for the work to be completed and resume of qualifications for the work they wish to perform. The Service will then respond to the requester with a letter authorizing them to complete the work.

2. *Request for written take authorization*—After receiving confirmation of wolf activity on private land, on a public land grazing allotment, or on a Tribal reservation, we or the designated agent may issue written take authorization valid for not longer than 1 year, with appropriate conditions, to any landowner or public land permittee to intentionally harass wolves. The harassment must occur in the area and under the conditions as specifically identified in the written take authorization.

3. *Request for ''shoot-on-sight'' written take authorization*—The Service or designated agent may issue a ''shoot-on-sight'' written take authorization of limited duration (45 days or fewer) to a landowner or their employees, or to a public land grazing permittee, to take up to a specified (by the Service or our designated agent) number of wolves.

4. *Reporting requirements*—Except as otherwise specified in this proposed rule or in an authorization, any take of a gray wolf must be reported to the Service or our designated agent as follows (additional reasonable time will be allowed if access to the site is limited):

**Commented [DT38]:** This seems like overreach?

a. *Lethal take* must be reported within 24 hours.

b. *Opportunistic or intentional harassment* must be reported within 7 days.

c. Gray wolves *taken into captivity for care or to be euthanized* must be reported to the Service within 24 hours, or as soon as reasonably appropriate.

5. *Annual report*—To evaluate progress toward achieving State downlisting and delisting criteria, the Service will summarize monitoring information in an annual report by Colorado Parks and Wildlife. The report, due by June 30 of each year, will describe wolf conservation and management activities that occurred in Colorado each calendar or biological year. The annual report may include, but not be limited to:

- post-release wolf movements and behavior;
- wolf minimum counts or abundance estimates;
- reproductive success and recruitment;
- territory use and distribution;
- cause-specific wolf mortalities; and
- a summary of wolf conflicts and associated management activities to minimize wolf conflict risk.

6. *Recovery or reporting of dead individuals and specimen collection from experimental populations*—This type of information is for the purpose of documenting incidental or authorized scientific collection. Specimens are to be retained or disposed of only in accordance with directions from the Service. Most of the contacts with the public deal primarily with the reporting of sightings of experimental population animals, or the inadvertent discovery of an injured or dead individual.

We will use the information described above to assess the effectiveness of control activities and develop means to reduce problems with livestock where depredation is a problem. Service recovery specialists use the information to determine the success of reintroductions in relation to established recovery plan goals for the threatened and endangered species involved.

*Title of Collection:* Endangered and Threatened Wildlife, Experimental Populations—Colorado Gray Wolf (50 CFR 17.84).

*OMB Control Number:* 1018–New.

*Form Numbers:* None.

*Type of Review:* New.

*Respondents/Affected Public:* Individuals; private sector; and State/local/Tribal governments.

*Respondent's Obligation:* Required to obtain or retain a benefit.

*Frequency of Collection:* Annually for annual report and on occasion for other requirements.

*Total Estimated Annual Nonhour Burden Cost:* None.

| Requirement | Number of annual respondents | Number of annual responses each | Total annual responses | Average completion time | Total annual burden hours |
|---|---|---|---|---|---|
| **Appointment of Designated Agent** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Request for Written Take Authorization** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Request for "Shoot-on-Sight" Written Take Authorization** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Reporting Requirement—Lethal Take** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Reporting Requirement—Opportunistic or Intentional Harassment** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |

| Requirement | Number of annual respondents | Number of annual responses each | Total annual responses | Average completion time | Total annual burden hours |
|---|---|---|---|---|---|
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Reporting Requirement—Captivity for Care or to be Euthanized** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Annual Report** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| **Notification—Recovery or Reporting of Dead Specimen and Specimen Collection** | | | | | |
| Individuals | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Private Sector | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| State/Local/Tribal Gov't | 1 | 1 | 1 | 30 min (reporting)<br>30 min (recordkeeping) | 1 |
| Totals: | 24 | | 24 | | 24 |

Send your written comments and suggestions on this information collection by the date indicated in **DATES** to the Service Information Collection Clearance Officer, U.S. Fish and Wildlife Service, MS: PRB/PERMA (JAO), 5275 Leesburg Pike, Falls Church, VA 22041–3803 (mail); or by email to *Info_Coll@fws.gov*. Please reference OMB Control Number 1018–Gray Wolf in the subject line of your comments.

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relatives with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments; 65 FR 67249, November 9, 2000), and the Department of the Interior's manual at 512 DM 2, we have considered possible effects of this proposed this rule on federally recognized Indian Tribes. We notified the Native American Tribes within and adjacent to the NEP about this proposed rule. We invited the two Colorado Tribes to serve as cooperating agencies in the development of the draft environmental impact statement (DEIS) and offered government-to-government consultation. We communicated with Indian Tribes in Colorado, eastern Utah, and portions of northern Arizona and northern New Mexico through written contact, including informational mailings from the Service and email notifications to attend video and teleconference informational sessions and public hearings and to comment on the DEIS and proposed rule. We invited all Tribes in Colorado areas surrounding the NEP in Utah, Arizona, and New Mexico to request government-to-government consultation under Secretarial Order 3206. We held an informational webinar for all Tribes, to discuss our proposed rule. If future activities resulting from this proposed rule may affect Tribal resources, the Service will communicate and consult on a government-to-government basis with any affected Native American Tribes in order to find a mutually agreeable solution.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

In compliance with all provisions of the National Environmental Policy Act of 1969 (NEPA), we are in the process of analyzing the impacts of this proposed rule. On July 21, 2022, we published a document in the **Federal Register** that announced our intent to prepare an environmental impact statement (EIS) to evaluate the potential environmental impacts of issuing a proposed rule as requested by the State of Colorado for its reintroduction and management of the gray wolf (87 FR 43489). We accepted comments until August 22, 2022. We have now completed a draft EIS (DEIS), which is available for public review and comment as described above in **DATES** and **ADDRESSES**. The DEIS evaluates options for a regulatory framework, including a rule consistent with section 10(j) of the Act, for the reintroduction and management of gray wolves in part of the species' historical range in Colorado. The DEIS analyzes potential environmental impacts that may result from two action alternatives and the no-action alternative and includes relevant and reasonable measures that could avoid or mitigate potential impacts.

Based on any new information resulting from public comment received on the DEIS or on this proposed rule, we will determine if there are any significant impacts or effects that would be caused by implementing this proposed rule. All appropriate NEPA analysis will be finalized before this proposed rule is finalized.

*Energy Supply, Distribution, or Use (E.O. 13211)*

Executive Order 13211 requires agencies to prepare statements of energy effects when undertaking certain actions. This proposed rule is not expected to significantly affect energy supplies, distribution, and use. Therefore, this action is not a significant energy action, and no statement of energy effects is required.

*Clarity of This Regulation (E.O. 12866)*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(a) Be logically organized;

(b) Use the active voice to address readers directly;

(c) Use clear language rather than jargon;

(d) Be divided into short sections and sentences; and

(e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the proposed rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

**References Cited**

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* and upon request from the Colorado Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

**Authors**

The primary authors of this proposed rule are the staff members of the Colorado Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

**Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

## PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. Amend § 17.84 by adding paragraph (a) to read as follows:

**§ 17.84 Special rules—vertebrates.**

(a) Wolf, gray (*Canis lupus*). (1) The regulations in this paragraph (a) set forth the provisions of a rule to establish an experimental population of gray wolves. The Service finds that establishment of an experimental population of gray wolves as described in this paragraph (a) will further the conservation of the species.

(2) *Determinations.* The gray wolves identified in paragraph (a)(3) of this section constitute a nonessential experimental population (NEP) under § 17.81(c)(2). These wolves will be managed in accordance with the provisions of this rule in the boundaries of the NEP area within the State of Colorado or any Tribal reservation found in the State that has a wolf management plan, as further provided in this rule. Furthermore, the State of Colorado or any Tribe within the State that has a wolf management plan consistent with this rule can request the Service to assume the lead authority for wolf management under this rule within the borders of the NEP area in the State or reservation as set forth in paragraph (a)(10) of this section.

(3) *Designated area.* The site for this experimental population is within the historical range of the species. The Colorado NEP area encompasses the entire State of Colorado. All wolves found in the wild within the boundary of the Colorado NEP area are considered nonessential experimental animals. Any wolf that is outside the Colorado NEP area, with the exception of wolves in the States of Idaho, Minnesota, Montana, Wyoming, and portions of the States of Oregon, Washington, and Utah, is considered endangered. Any wolf originating from the Colorado NEP area and dispersing beyond its borders may be managed by the wolf management regulations established for that area or may be returned to the Colorado NEP area.

(4) *Definitions.* Key terms used in this rule have the following meanings:

*Designated agent*—An employee of a Federal, State, or Tribal agency that is authorized or directed by the Service to conduct gray wolf management consistent with this rule.

*Domestic animals*—Animals that have been selectively bred over many generations to enhance specific traits for their use by humans, including for use as pets. This term includes livestock and dogs.

*Intentional harassment*—The deliberate and pre-planned harassment of wolves, including by less-than-lethal munitions that are designed to cause physical discomfort and temporary physical injury but not death.

*In the act of attacking*—The actual biting, wounding, grasping, or killing of livestock or dogs or chasing, molesting, or harassing by wolves that would indicate to a reasonable person that such biting, wounding, grasping, or killing of livestock or dogs is likely to occur at any moment.

*Landowner*—Any of the following entities:

(i) An owner or lessee of private land, or their immediate family members, or the owner's employees, contractors, or volunteers who are currently employed to actively work on that private land.

(ii) The owners, or their employees or contractors, of livestock that are currently and legally grazed on private land and herding and guarding animals (such as alpacas, llamas, or donkeys) and other leaseholders on private land, such as outfitters or guides who lease hunting rights from private landowners.

(iii) Individuals legally using Tribal lands in the State of Colorado with wolf management plans.

*Livestock*—Cattle, sheep, pigs, horses, mules, goats, domestic bison, and herding and guarding animals (alpacas, llamas, donkeys, and certain breeds of dogs commonly used for herding or guarding livestock). Livestock excludes dogs that are not being used for livestock guarding or herding.

*Livestock Producer*—A person that is actively engaged in farming/ranching and that receives a substantial amount of total income from the production of livestock.

*Non-injurious*—Does not cause either temporary or permanent physical damage or death.

*Opportunistic harassment*—Harassment without the conduct of prior purposeful actions to attract, track, wait for, or search out the wolf.

*Private land*—All land other than that under Federal Government ownership and administration and including Tribal reservations.

*Problem wolves*—Wolves that we or our designated agent confirm to have attacked any other domestic animals on private land twice within a calendar year.

*Public land*—Federal land such as that administered by the Service,

National Park Service, Bureau of Land Management, Bureau of Reclamation, U.S. Department of Agriculture's Forest Service, Department of Defense, or other agencies within the Federal Government.

*Public land permittee*—A person or that person's employee who has an active, valid Federal land-use permit to use specific Federal lands to graze livestock or operate an outfitter or guiding business that uses livestock and Tribal members who legally graze their livestock on ceded public lands under recognized Tribal treaty rights. This term does not include private individuals or organizations who have Federal permits for other activities on public land such as collecting firewood, mushrooms, antlers, or Christmas trees, logging, mining, oil or gas development, or other uses that do not require livestock.

*Remove*—Place in captivity, relocate to another location, or kill.

*Research*—Scientific studies resulting in data that will lend to enhancement of the survival of the gray wolf.

*Rule*—The regulations in this paragraph (a).

*Wounded*—Exhibiting scraped or torn hide or flesh, bleeding, or other evidence of physical damage caused by a wolf bite.

(5) *Allowable forms of take of gray wolves.* Take of gray wolves in the experimental population is allowed without a permit only in these specific circumstances: opportunistic harassment; intentional harassment; take in defense of human life; take to protect human safety; take by designated agents to remove problem wolves; incidental take; take under any previously authorized permits issued by the Service; take per authorizations for employees of designated agents; take for research purposes; and take to protect livestock animals and dogs. Consistent with the requirements of the State or Tribe, take is allowed on private land. Take on public land is allowed as specified in paragraph (a)(5)(iv)(A) of this section. Other than as expressly provided by the regulations in this rule, all other forms of take are considered a violation of section 9 of the Act. Any wolf or wolf part taken legally must be turned over to the Service unless otherwise specified in this rule. Any take of wolves must be reported as set forth in paragraph (a)(6) of this section.

(i) *Opportunistic harassment.* Anyone may conduct opportunistic harassment of any gray wolf in a non-injurious manner at any time. Opportunistic harassment must be reported to the Service or a designated agent within 7 days as set forth in paragraph (a)(6) of this section.

(ii) *Intentional harassment.* After we or a designated agent have confirmed wolf activity on private land, on a public land grazing allotment, or on a Tribal reservation, we or the designated agent may issue written take authorization valid for not longer than 1 year, with appropriate conditions, to any landowner or public land permittee to intentionally harass wolves. The harassment must occur in the area and under the conditions as specifically identified in the written take authorization. Intentional harassment must be reported to the Service or a designated agent(s) within 7 days as set forth in paragraph (a)(6) of this section.

(iii) *Take by landowners on their private land.* Landowners may take wolves on their private land in the following two additional circumstances:

(A) Consistent with State or Tribal requirements, any landowner may take a gray wolf in the act of attacking livestock or dogs (working or pet) on their private land, provided that there is no evidence of intentional baiting, feeding, or deliberate attractants of wolves. To preserve physical evidence that the livestock or dogs were recently attacked by a wolf or wolves, the carcass and surrounding area must not be disturbed. The Service or designated agent must be able to confirm that the livestock or dogs were wounded, harassed, molested, or killed by wolves. The take of any wolf without such evidence of a direct and immediate threat may be referred to the appropriate authorities for prosecution.

(B) The Service or designated agent may issue a ''shoot-on-sight'' written take authorization of limited duration (45 days or fewer) to a landowner or their employees to take up to a specified (by the Service or our designated agent) number of wolves on their private land if:

(1) The landowner has had at least one depredation by wolves on livestock that has been confirmed by the Service or our designated agent within the last 30 days; and

(2) The Service or our designated agent has determined that problem wolves routinely occur on the private land and present a significant risk to the health and safety of livestock; and

(3) The Service or our designated agent has authorized lethal removal of wolves from those same private lands.

(4) These authorizations may be terminated at any time once threats have been resolved or minimized.

(iv) *Take on public land.* Consistent with State or Tribal requirements, any livestock producer and public land permittee (see definitions in paragraph (a)(4) of this section) who is legally using public land under a valid Federal land-use permit may take a gray wolf in the act of attacking livestock or dogs on the person's allotment or other area authorized for the person's use without prior written authorization.

(A) The Service or designated agent must be able to confirm that the livestock or dog were wounded, harassed, molested, or killed by a wolf or wolves. The carcass of any wolf taken and the area surrounding it should not be disturbed to preserve physical evidence that the take was conducted according to this rule. Any person legally present on public land may immediately take a wolf that is in the act of attacking the individual's stock animal or dog, provided conditions described in paragraph (a)(5)(iii)(A) of this section for private land (*i.e.,* ''in the act of attacking'') are met. Any take or method of take on public land must be consistent with the laws and regulations on those public lands.

(B) The Service or our designated agent may issue a ''shoot-on-sight'' written take authorization of limited duration (45 days or fewer) to a public land grazing permittee to take up to a specified (by the Service or our designated agent) number of wolves on that permittee's active livestock grazing allotment if all of the following situations occur:

(1) The grazing allotment has had at least one depredation by wolves on livestock that has been confirmed by the Service or our designated agent within the last 30 days; and

(2) The Service or our designated agent has determined that problem wolves routinely occur on that allotment and present a significant risk to the health and safety of livestock; and

(3) The Service or our designated agent has authorized lethal removal of wolves from that same allotment.

(4) These authorizations may be terminated at any time once threats have been resolved or minimized.

(5) Any take or method of take on public land must be consistent with the rules and regulations on those public lands.

(v) *Agency take of wolves that repeatedly depredate livestock.* The Service or our designated agent may carry out harassment, nonlethal control measures, relocation, placement in captivity, or lethal control of problem wolves. The Service or our designated agent will consider:

(A) Evidence of wounded livestock, dogs, or other domestic animals, or remains of livestock, dogs, or domestic animals that show that the injury or

**Commented [DT39]:** See previous comment

death was caused by wolves, or evidence that wolves were in the act of attacking livestock, dogs, or domestic animals;

(B) The likelihood that additional wolf-caused losses or attacks may occur if no control action is taken;

(C) Any evidence of unusual attractants or artificial or intentional feeding of wolves; and

(D) Evidence that animal husbandry practices recommended in approved allotment plans and annual operating plans were followed.

(vi) *Take in defense of human life.* Any person may take a gray wolf in defense of the individual's life or the life of another person. The taking of a wolf without an immediate and direct threat to human life may be referred to the appropriate authorities for prosecution.

(vii) *Take to protect human safety.* The Service or our designated agent may promptly remove any wolf that we or our designated agent determines to be a threat to human life or safety.

(viii) *Incidental take.* Take of a gray wolf is allowed if the take is accidental and/or incidental to an otherwise lawful activity and if reasonable due care was practiced to avoid such take and such take is reported within 24 hours as set forth at paragraph (a)(6) of this section. We may refer incidental take that does not meet these provisions to the appropriate authorities for prosecution. Shooters have the responsibility to identify their target before shooting. Shooting a wolf as a result of mistaking it for another species is not considered accidental and may be referred to the appropriate authorities for prosecution.

(ix) *Take under permits.* Any person with a valid permit issued by the Service under 50 CFR 17.32, or our designated agent, may take wolves in the wild, pursuant to terms of the permit.

(x) *Additional take authorization for agency employees.* When acting in the course of official duties, any employee of the Service or a designated agent may take a wolf when necessary in regard to the release, tracking, monitoring, recapture, and management of the NEP or to:

(A) Aid or euthanize a sick, injured, or orphaned wolf and transfer it to a licensed veterinarian for care;

(B) Dispose of a dead specimen;

(C) Salvage a dead specimen that may be used for scientific study;

(D) Aid in law enforcement investigations involving wolves (collection of specimens for necropsy, etc.); or

(E) Remove wolves with abnormal physical or behavioral characteristics, as determined by the Service or our designated agent, from passing on or teaching those traits to other wolves.

(F) Such take must be reported to the Service as set forth in paragraph (a)(6) of this section, and specimens are to be retained or disposed of only in accordance with directions from the Service.

(xi) *Take for research purposes.* Permits are available and required, except as otherwise allowed by this rule, for scientific purposes, enhancement of propagation or survival, educational purposes, or other purposes consistent with the Act (50 CFR 17.32). Scientific studies should be reasonably expected to result in data that will lead to development of sound management of the gray wolf and to enhancement of its survival as a species.

(6) *Reporting requirements.* Except as otherwise specified in this rule or in an authorization, any take of a gray wolf must be reported to the Service or our designated agent as follows: Lethal take must be reported within 24 hours, and opportunistic or intentional harassment must be reported within 7 days. We will allow additional reasonable time if access to the site is limited.

(i) Report any take of wolves, including opportunistic harassment or intentional harassment, to U.S. Fish and Wildlife Service, Colorado Ecological Services Field Office Supervisor (134 Union Boulevard, Suite 670, Lakewood, Colorado 80225, *ColoradoES@fws.gov*), or a Service-designated agent of another Federal, State, or Tribal agency.

(ii) Unless otherwise specified in this paragraph (a) any wolf or wolf part taken legally must be turned over to the Service, which will determine the disposition of any live or dead wolves.

(7) *Prohibitions.* Take of any gray wolf in the NEP is prohibited, except as provided in paragraphs (a)(5) and (8) of this section. Specifically, the following actions are prohibited by this rule:

(i) No person shall possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever, any wolf or part thereof from the experimental population taken in violation of the regulations in this paragraph (a) or in violation of applicable State or Tribal fish and wildlife laws or regulations or the Act.

(ii) It is unlawful for any person to attempt to commit, solicit another to commit, or cause to be committed any offense defined in this paragraph (a).

(8) *Monitoring.* Gray wolves in the NEP area will be monitored by radio telemetry or other standard wolf population monitoring techniques as appropriate. Any animal that is sick, injured, or otherwise in need of special care may be captured by authorized personnel of the Service or our designated agent and given appropriate care. Such an animal will be released back into its respective area as soon as possible, unless physical or behavioral problems make it necessary to return the animal to captivity or euthanize it. If a gray wolf is taken into captivity for care or is euthanized, it must be reported to the Service within 24 hours or as soon as reasonably appropriate.

(9) *Review and evaluation of the success or failure of the NEP.* Radio transmitters, remote cameras, surveys of roads and trails to document wolf sign, and other monitoring techniques will be used to document wolf reproductive success, abundance, and distribution in Colorado post-release.

(i) To evaluate progress toward achieving State downlisting and delisting criteria, the Service will summarize this information in an annual report by CPW, submitted by June 30 of each year, that describes wolf conservation and management activities that occurred in Colorado each calendar or biological year. The annual report may include, but not be limited to: post-release wolf movements and behavior; wolf minimum counts or abundance estimates; reproductive success and recruitment; territory use and distribution; cause-specific wolf mortalities; and a summary of wolf conflicts and associated management activities to minimize wolf conflict risk.

(ii) To assess the reintroduction program, the Service will evaluate Colorado's wolf reintroduction and management program in a summary report each year that wolf reintroductions occur in the State and for a minimum of 5 years after reintroductions are complete. If the Service determines that modifications to reintroduction protocols and wolf monitoring and management activities are needed, the Service will coordinate closely with the State to ensure progress toward achieving recovery goals while concurrently minimizing wolf-related conflicts in Colorado.

(10) *Memorandum of Agreement (MOA).* The State of Colorado or any Tribe within the State, subject to the terms of this rule, may request an MOA from the Service to take over lead management responsibility and authority to implement this rule by managing the nonessential experimental gray wolves in the State or on that Tribal reservation, and implement all parts of their State or Tribal plan that are consistent with this rule, provided that the State or Tribe has a wolf management plan approved by the Service.

(i) The State or Tribal request for wolf management under an MOA must demonstrate:

(A) That authority and management capability reside in the State or Tribe to conserve the gray wolf throughout the geographical range of the experimental population within the State of Colorado or within the Tribal reservation;

(B) That the State or Tribe has an acceptable conservation program for the gray wolf, throughout the NEP area within the State or Tribal reservation, including the requisite authority and capacity to carry out that conservation program;

(C) Exactly what parts of the State or Tribal plan the State or Tribe intends to implement within the framework of this rule; and

(D) That the State or Tribal management progress will be reported to the Service on at least an annual basis so the Service can determine if State or Tribal management was conducted in full compliance with this rule.

(ii) The Service will approve such a request upon a finding that the applicable criteria are met and that approval is not likely to jeopardize the continued existence of the gray wolf in the NEP.

(iii) If the Service approves the request, the Service will enter into an MOA with the State of Colorado or appropriate Tribal representative.

(iv) An MOA for State or Tribal management as provided in this rule may allow the State of Colorado or any Tribe within the State to become designated agents and lead management of the nonessential experimental gray wolf population within the borders of their jurisdictions in accordance with the State's or Tribe's wolf management plan, except that:

(A) The MOA may not provide for any form of management inconsistent with the protection provided to the species under this rule, without further opportunity for appropriate public comment and review and amendment of this rule.

(B) The MOA cannot vest the State of Colorado or any Tribe within the State with any authority over matters concerning section 4 of the Act (determining whether a species warrants listing).

(C) In the absence of a Tribal wolf management plan or cooperative agreement, the MOA cannot vest the State of Colorado with the authority to issue written authorizations for wolf take on reservations. The Service will retain the authority to issue these written authorizations until a Tribal wolf management plan is developed.

(D) The MOA for State or Tribal wolf management must provide for joint law enforcement responsibilities to ensure that the Service also has the authority to enforce the State or Tribal management program prohibitions on take.

(E) The MOA may not authorize wolf take beyond that stated in the rule but may be more restrictive.

(v) The authority for the MOA will be the Act, the Fish and Wildlife Act of 1956 (16 U.S.C. 742a–742j), and the Fish and Wildlife Coordination Act (16 U.S.C. 661–667e), and any applicable treaty.

(vi) In order for the MOA to remain in effect, the Service must find, on an annual basis, that the management under the MOA is not jeopardizing the continued existence of the gray wolf in the NEP. The Service or State or Tribe may terminate the MOA upon 90 days' notice if:

(A) Management under the MOA is likely to jeopardize the continued existence of the gray wolf in the NEP;

(B) The State or Tribe has failed materially to comply with this rule, the MOA, or any relevant provision of the State or Tribal wolf management plan;

(C) The Service determines that biological circumstances within the range of the gray wolf indicate that delisting the species is warranted; or

(D) The States or Tribes determine that they no longer want the wolf management authority vested in them by the Service in the MOA.

* * * * *

**Stephen Guertin,**

*Acting Director, U.S. Fish and Wildlife Service.*

[FR Doc. 2023–03196 Filed 2–16–23; 8:45 am]

BILLING CODE 4333–15–P

## Re: [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

Daniel Thompson <daniel.thompson@wyo.gov>

Thu 4/20/2023 8:37 PM

To: Hansen, Craig <Craig_Hansen@fws.gov>

Hi Craig,

I ended up having to deal with some unforeseen conflict issues (tis the season). If I am unable to get my full peer review comments back to you by tomorrow will send them over the weekend. Apologize for this but it appears you have over 20,000 comments from the public too!! Overall the document is good, there are some minor things that would be beneficial that I was keeping track of separately that I offer but again will send with the full file once back to the office. I am including the below notes as mentioned that were garnered from our lead wolf biologist as well in his own separate review of the document that will be useful

The Wyoming state boundary is also the Northern Rocky Mountain gray wolf DPS boundary, which means the two areas under consideration are independent as described by the ESA and should be treated/managed independently. ESA designations outside DPS boundaries cannot impact management within the DPS by the very nature of DPS rules (DPS populations are distinct and independent of other populations) so wolves in Wyoming (regardless of origin) must be managed under the respective rules of the NRM DPS (WY statute, WGFC regulation, and WY wolf management plan).

Wolf numbers are compared to OR and WA during the early years of wolf recolonization in those states. This is not the most appropriate comparison because wolves recolonized OR and WA from an actively reintroduced population of 35 wolves in ID. CO is proposing to actively reintroduce 30-45 wolves, thus population growth (which was more rapid in ID than in OR and WA) is the better comparison.

ID and the GYE wolf populations probably showed very little intrinsic population regulation outside of reaching carrying capacity as determined by prey availability (i.e., numbers were not actively intrinsically regulated by wolf sociality).

Elk population and harvest comparisons statewide in MT, ID, and WY do not represent the trend in areas occupied by wolves. The discussion that follows concerning MT acknowledges this, but in WY, statewide generalization drowns out any potential impacts in NW WY.

This is more specific to where I work, but there is a need to clarify the use of wolf-livestock conflicts from the Wyoming Game and Fish annual report(s). You should either report statewide or in the trophy game management area only, the mix and match which leads to confusion (I mentioned this in earlier discussions prior to the draft). Also, the number of wolves and conflicts are reported as definite numbers, not minimums. Actual conflicts, especially depredated cattle, are higher.

Lethal removal of offending individuals in WY has been an effective tool to reduce conflict while allowing the population to increase while listed and while managing the delisted population. Liz Bradley and others citation...

Curious in the bullets you present benchmarks on survival and mortality on different time scales. Why high survival for the first 6 months and low mortality the first 2-3 years? Could you have low survival past 6 months and still have low mortality out to 2-3 years for the same animals???

The EIS mentions Great Lakes wolves as a potential source for reintroduction to CO. While both areas are in the designated historic range of the subspecies *C.l. nubilis*, the modern wolf in the Great Lakes has historic admixture with Eastern wolves (and to a lesser degree, coyotes). I don't believe WY would be in favor of introducing an admixed gray wolf that would spread into the state and interbreed with western gray wolves. The potential may be small, but historic admixture with other canids by gray wolves from the Great Lakes could portend an increased risk of hybridization with other canids in the west (i.e., primarily coyotes). This is especially true in the early years of a reintroduction program that plans to hard-release reproductively mature individuals during the breeding season into an environment with severely limited opportunity to reproduce with conspecifics, yet an abundant source of non-conspecific coyotes. Gray wolves in the western US have no history of hybridizing with coyotes, and should be the target source for reintroduction to ensure genetic integrity of the wolf population in CO and surrounding states (WY and the Mexican Wolf DPS). Here's a very recent article about Great Lakes wolf genetics:
https://academic.oup.com/mbe/article/40/4/msad055/7103497?login=false

On Tue, Apr 18, 2023 at 5:43 PM Hansen, Craig <Craig_Hansen@fws.gov> wrote:

> Copy. Thank you so much.
>
> Craig.
>
> ---
>
> **From:** Daniel Thompson <daniel.thompson@wyo.gov>
> **Sent:** Tuesday, April 18, 2023 5:39 PM
> **To:** Hansen, Craig <Craig_Hansen@fws.gov>
> **Subject:** [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado
>
> **This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**
>
> I was just chatting with Scott Becker here with FWS, I plan to submit comments tomorrow or next day. Thanks Craig.
>
> DT
>
> On Tuesday, April 18, 2023, Hansen, Craig <Craig_Hansen@fws.gov> wrote:
>
> > Greetings,
> >
> > Just a friendly check-in on this peer review request. Please let me know if I can be of any assistance.
> >
> > Thank you so much for your time.
> >
> > Sincerely,

Craig Hansen

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**From:** Hansen, Craig <Craig_Hansen@fws.gov>
**Sent:** Thursday, February 16, 2023 7:32 AM
**To:** daniel thompson <daniel.thompson@wyo.gov>
**Subject:** Fw: [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

Dear Dr. Thompson:

Thank you for your willingness to participate as a scientific peer reviewer of the U.S. Fish and Wildlife Service's (Service's) **proposed rule to establish a nonessential experimental population (NEP) of the gray wolf (*Canis lupus*) in the State of Colorado**, under section 10(j) of the Endangered Species Act of 1973, as amended (Act) (Docket No. FWS-R6-ES-2022-0100). Following the 60-day public comment period, which closes on **April 18, 2023**, we will review and address all peer and public comments, and work to finalize this rulemaking.

Thank you for completing your conflict of interest form. I have reviewed and approved your submission.

**BACKGROUND INFORMATION:**
In accordance with our July 1, 1994, peer review policy (59 FR 34270), the Service's August 22, 2016, Director's Memo on the Peer Review Process, and the Office of Management and Budget's December 16, 2004, Final Information Quality Bulletin for Peer Review, we now invite your assistance in conducting an independent peer review of this proposed rule. The purpose of this peer review is to ensure that our proposed rule is based on scientifically sound data, assumptions, and analyses. The Peer Review Plan for this rulemaking provides additional information.

During this peer review process, we invite you to comment on the specific assumptions and scientific assessments included in proposed rule. The opinions of all peer reviewers will be incorporated or summarized, and your input will be taken into consideration as part of our rulemaking process.

Additionally, we ask that you focus your review of the document on the scientific information and analyses relevant to your area of expertise. Please note that we are not asking for and will not accept input on the policy determinations that we are charged with making under the Act. The Service retains full control over relevant policy determinations and no pre-decisional assumptions regarding those determinations will be discussed. You were selected as peer reviewer based solely on your scientific qualifications, rather than as a representative of any particular position of an agency, employer, or other interested party.

We ask that you consider the following questions about the content of the documents, and we welcome any other relevant comments:

1. Is our description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species accurate?
2. Are there any significant oversights, omissions, or inconsistencies?
3. Are the conclusions we reach logical and supported by the evidence we provide?
4. Did we include all the necessary and pertinent literature to support our assumptions, arguments, and conclusions?
5. Are there additional considerations regarding the geographic boundary of the NEP, the adequacy of the proposed regulations for the NEP, or additional management that may be needed to address expanding gray wolf populations?

If you find that our data are inadequate, please identify additional data or studies that may be needed. Please provide literature, data, and full citations, if appropriate.

Please be aware that your comments, including your name and address, will be included in the administrative record for this action, which will be available to the public, upon request. Per our peer review policy, we must also post your complete conflict of interest forms to our agency's peer review webpage; the policy also directs us to make your comments available to the public, either on our own website or on Regulations.gov with the associated docket (FWS-R6-ES-2022-0100).

**DOCUMENTS NEEDED FOR YOUR PEER REVIEW:**
You may access the proposed rule, the references cited, and the peer review plan using the following hyperlinks:

- Peer Review Plan:
- Proposed rule for your peer review
- References Cited in the Proposed Rule

**DUE DATE:**
We would appreciate receiving your peer review in 60 days from the publication in the *Federal Register*, so by **April 18, 2023**, r***eturned by email to me at craig_hansen@fws.gov***. No need to also submit your peer review through Regulations.gov.

Thank you again for your time and expertise to help us ensure that our proposed rule includes the best possible scientific information and analyses. I look forward to receiving your review. Please do not hesitate to contact me at any time by telephone or email if I can answer any questions.

Sincerely,

Craig Hansen
U.S. Fish and Wildlife Service
(303) 236-4749; craig_hansen@fws.gov

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**From:** Daniel Thompson <daniel.thompson@wyo.gov>
**Sent:** Tuesday, February 14, 2023 9:58 AM
**To:** Hansen, Craig <Craig_Hansen@fws.gov>
**Subject:** Re: [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

Very good, I wanted to make sure I was conveying absolute truth in that I obviously work with ESA issues and wolves and such but nothing that would be classified as an actual conflict of interest.

On Tue, Feb 14, 2023 at 9:27 AM Hansen, Craig <Craig_Hansen@fws.gov> wrote:

> COI Form received and approved. Thank you!
>
> Craig.
>
> ---
>
> **From:** Hansen, Craig <Craig_Hansen@fws.gov>
> **Sent:** Tuesday, February 14, 2023 9:04 AM
> **To:** daniel thompson <daniel.thompson@wyo.gov>

**Subject:** Re: [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

Most appreciated! I'll be in touch with the documents when they are ready and after we review your COI form.

Craig.

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**From:** Daniel Thompson <daniel.thompson@wyo.gov>
**Sent:** Tuesday, February 14, 2023 8:46 AM
**To:** Hansen, Craig <Craig_Hansen@fws.gov>
**Subject:** Re: [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

Oh very good, yes that would not be a problem (I was just hoping it wasn't >350 pages!). Will do.

Dan

On Tue, Feb 14, 2023 at 8:43 AM Hansen, Craig <Craig_Hansen@fws.gov> wrote:

> Most appreciated.
>
> The document is currently 82 pages in Word, double spaced with a 1.5-inch left margin, if helpful.
>
> At your convenience, and if you are still able to participate as a peer reviewer, please complete this conflict of interest form at your earliest convenience:
>
> - **COI Form:** https://forms.office.com/g/fEq1hk41Ls
>   - **ID Number:** Leave blank
>   - **Rulemaking name:** Colorado gray wolf 10(j)
>   - **Point of Contact email:** craig_hansen@fws.gov
>
> I expect to be able to distribute the document later this week. You would have 60 days for your peer review.
>
> Thank you!
>
> Craig Hansen
>
> ---
>
> **From:** Daniel Thompson <daniel.thompson@wyo.gov>
> **Sent:** Tuesday, February 14, 2023 8:32 AM
> **To:** Hansen, Craig <Craig_Hansen@fws.gov>
> **Subject:** [EXTERNAL] Re: PEER REVIEW REQUEST | Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado
>
> 

Hello Craig,

Yes I would be interested in serving as a peer reviewer and have obtained approval to do so from our Wildlife Administration. We are curious as to the overall length of the document in regards to timing and workload with many other projects occurring concurrently.

Thanks for the offer.

Dan

On Mon, Feb 13, 2023 at 2:29 PM Hansen, Craig <Craig_Hansen@fws.gov> wrote:

> **PEER REVIEW REQUEST| Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (*Canis lupus*) in Colorado**
>
> Greetings:
>
> The U.S. Fish & Wildlife Service (Service) has drafted a proposed rule to establish a nonessential experimental population (NEP) of the gray wolf (*Canis lupus*) in the State of Colorado, under section 10(j) of the Endangered Species Act of 1973, as amended (Act). You have been recommended as a potential peer reviewer of the proposed rule based on your area of scientific expertise. I am writing to to ask whether you would be willing and available to serve as a peer reviewer of this document.
>
> Peer review will run concurrently with the proposed rule's public comment period. If you agree to participate as a peer reviewer, I anticipate distributing the document within the next week, or as soon as the document publishes in the *Federal Register*. You would then have **60 days** to provide your peer review back to me by email. We will not be providing financial compensation to peer reviewers. Before receiving the document, you would be asked to complete and return an online conflict of interest form.
>
> Additional information about this peer review process and specific questions to help focus the peer review can be found in the attached peer review plan. Please let me know as soon as possible, preferably by **this Friday, February 17, 2023**,, whether you would be willing and able to participate as a peer reviewer. Please do not hesitate to contact me with any questions.
>
> We would greatly appreciate your input, expertise, and time. Thank you for your consideration.
>
> Sincerely,
>
> Craig Hansen
> Regional Recovery Coordinator - Mountain-Prairie Region
> U.S. Fish and Wildlife Service
>
> **Craig Hansen**
> U.S. Fish & Wildlife Service, Region 6
> Ecological Services - Branch of Classification & Recovery
> Recovery Coordinator / Fish & Wildlife Biologist
> **Phone:** (303) 236-4749 **Fax:** (303) 236-0027
> **Email:** craig_hansen@fws.gov




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Large Carnivore Section Supervisor
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E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.

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Respondent

2 Anonymous

19:25
Time to complete

## Conflict of Interest Disclosure

1. ID Number (if provided in request email, otherwise leave blank)

2. Report or Rulemaking Name (provided in request email) *

Colorado gray wolf 10(j)

3. Point of Contact Email (the **@fws.gov** address provided in request email) *

craig_hansen@fws.gov

4. Your Full Name (First, Last) *

L. David Mech

5. Telephone (work/professional) *

651-647-0408

6. Address (work/professional) *

Northern Prairie Wildlife Research Center, Jamestown, N. D. 58401

7. Email Address (work/professional) *

david_mech@usgs.gov

8. Current Employer *

U. S. Geological Survey

## Instructions

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The term "conflict of interest" means something more than individual bias. There must be an interest that could be directly affected by your participation as a peer reviewer. Conflict of interest requirements are objective and prophylactic. They are not an assessment of one's actual behavior or character, one's ability to act objectively despite the conflicting interest, or one's relative insensitivity to particular dollar amounts of specific assets because of one's personal wealth. Conflict of interest requirements are objective standards designed to eliminate certain specific, potentially compromising situations from arising, and thereby to protect the individual, the Service, and the public interest. The individual and the Service should not be placed in a situation where others could reasonably question, and perhaps discount or dismiss, the information produced through the peer review simply because of the existence of conflicting interests.

## Instructions (continued)

The term "conflict of interest" applies only to current interests. It does not apply to past interests that have expired, no longer exist, and cannot reasonably affect current behavior. Nor does it apply to possible interests that may arise in the future but do not currently exist, because such future interests are inherently speculative and uncertain. For example, a pending formal or informal application for a particular job is a current interest, but the mere possibility that one might apply for such a job in the future is not a current interest.

The term "conflict of interest" applies not only to the personal interests of the individual but also to the interests of others with whom the individual has substantial common financial or other interests if these interests are relevant to the functions to be performed. Thus, in assessing an individual's potential conflicts of interest, consideration must be given not only to the interests of the individual but also to the interests of the individual's spouse and minor children, the individual's employer, the individual's business partners, and others with whom the individual has substantial common financial or other interests. Consideration must also be given to the interests of those for whom one is acting in a fiduciary or similar capacity (e.g., being an officer or director of a corporation, whether profit or nonprofit, or serving as a trustee).

Such interests could include an individual's stock holdings in excess of $10,000 in a potentially affected company or being an officer, director, or employee of the company. Serving as a consultant to the company could constitute such an interest if the consulting relationship with the company could be directly affected or is directly related to the subject matter of the regulatory process.

An individual's other possible interests might include, for example, relevant patents and other forms of intellectual property, serving as an expert witness in litigation directly related to the subject matter of the regulatory process, or receiving research funding from a party that would be directly affected by the regulatory process if the research funding could be directly affected or is directly related to the subject matter of the regulatory process and the right to independently conduct and publish the results of this research is limited by the sponsor. Consideration would also need to be given to the interests of others with whom the individual has substantial common financial interests -- particularly spouses, employers, clients, and business or research partners.

The following questions are designed to elicit information from you concerning possible conflicts of interest that are relevant to the functions to be performed by your peer review.

During your period of service in connection with the activity for which this form is being completed, any changes in the information reported, or any new information, which needs to be reported, should be reported promptly by written or electronic communication to the responsible staff officer.

## Employment

If the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent document

9. If you are employed or self-employed, could your current employment or self-employment (or your spouse's current employment or self-employment) be directly affected? *

No

10. To the best of your knowledge, could any financial interests of your (or your spouse's) employer or, if self-employed, your (or your spouse's) clients and/or business partners be directly affected? *

No

11. If you are an officer, director or trustee of any corporation or other legal entity, could the financial interests of that corporation or legal entity be directly affected? *

No

12. If you are a consultant (whether full-time or part-time), could there be a direct effect on any of your current consulting relationships? *

No

13. Regardless of the potential effect on the consulting relationship, do you have any current or continuing consulting relationships (including, for example, commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, serving as an expert witness in litigation, or providing services in exchange for honorariums and travel expense reimbursements) that are directly related to the subject matter of the possible government regulatory action or inaction? *

No

14. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Employment (continued)

15. If you are or have ever been a U.S. Government employee (either civilian or military), to the best of your knowledge, are there any federal conflict of interest restrictions that may be applicable to your service in connection with this peer review? *

No

16. If you are a U.S. Government employee, are you currently employed by the Service? *

No

17. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Investment Interests

Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interest valued at less than $10,000), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

18. Do you or your spouse or minor children own directly or indirectly (e.g., through a trust or an individual account in a pension or profit-sharing plan) any stocks, bonds or other financial instruments or investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

19. Do you have any other significant financial investments or interests such as commercial business interests (e.g., sole proprietorships), investment interests (e.g., stock options), or personal investment relationships (e.g., involving parents or grandchildren) that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

20. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Property Interests

Taking into account real estate and other tangible property interests, as well as intellectual property (patents, copyrights, etc.) interests, if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

21. Do you or your spouse or minor children own directly or indirectly any such property interests that could be directly affected? *

No

22. To the best of your knowledge, do any others with whom you have substantial common financial interests (e.g., employer, business partners, etc.) own directly or indirectly any such property interests that could be directly affected? *

No

23. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Research Funding and Other Interests

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government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

24. Could the research funding and support for you or your close research colleagues and collaborators be directly affected, OR, if you have any research agreements for current or continuing research funding or support from any party whose financial interests could be directly affected, and such funding or support is directly related to the subject matter of the regulatory process, do such agreements significantly limit your ability to independently conduct and publish the results of your research? *

No

25. If you answered "Yes" to the question above, briefly describe the circumstances.

## Research Funding and Other Interests (continued)

26. Is the central purpose of the proposed rule for which this disclosure form is being prepared a critical review and evaluation of your own work or that of your employer? *

No

27. Do you have any existing professional obligations (e.g., as an officer of a scientific or engineering society) that effectively require you to publicly defend a previously established position on an issue that is relevant to the proposed rule? *

No

28. To the best of your knowledge, will your participation in this peer review process enable you to obtain access to a competitor's or potential competitor's confidential proprietary information? *

No

29. Could your service as a peer reviewer create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests? *

No

30. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

Review of

# Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Gray Wolf in Colorado

L. David Mech, Senior Research Scientist,

Northern Prairie Wildlife Research Center, U. S. Geological Survey

March 24, 2023

I have thoroughly read the February 17, 2023 proposed rule "Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Gray Wolf in Colorado." Following are my replies to the questions reviewers were asked to address:

1. Is our description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species accurate? **Yes, except as below.**
2. Are there any significant oversights, omissions, or inconsistencies? **See below**.
3. Are the conclusions we reach logical and supported by the evidence we provide? **Yes**.
4. Did we include all the necessary and pertinent literature to support our assumptions, arguments, and conclusions? **Yes, except as below**.
5. Are there additional considerations regarding the geographic boundary of the NEP, the adequacy of the proposed regulations for the NEP, or additional management that may be needed to address expanding gray wolf populations? **Yes. At least some of the released wolves will disperse beyond the NEP and presumably settle and reproduce outside the NEP. That will give rise to confusion as to the legal status of the dispersed individuals because they can be identified as reintroduced individuals originally subject to the 10j rule. In other words, they are subject to 10j regulations while within the NEP but are considered strictly endangered when outside of the NEP. Thus this proposed rule should prominently (in a special section) address that question.**

Otherwise, I have only a few minor suggestions for improving the rule as follow:

p.10262, column 1. 12 -Until recently, we did not know the actual range of sexual maturity for wolves, except that some, but not many, can breed when 10-months old, and others at 22 months, all based on anecdotal evidence. However, two recent studies have documented that the age of sexual maturity ranges from 1-4 years for males and 1-5 years for females (Mech et al. 2015; Wikenros et al. 2021).

p. 10265, Fig. 3 -Locations of prominent cities such as Denver, Vail, Aspen, Durango, etc. would make this map more readable and useful.

p. 10267, column 1, 2nd full par., line 3 –Needs updating. No more than 3 wolves were last documented.

p. 10267, column 2 bottom and column 3 -Consider mentioning the state's official mammal, the bighorn sheep, of which the estimate is 7,000, as potential prey.

p. 10276, column 1, 8th line from bottom -delete "this."

p. 10278, column 1, 6th line from bottom -Should "opportunistic harassment" be defined?

Literature Cited

Mech L.D., S. M. Barber-Meyer, and J. Erb. 2016. Wolf (*Canis lupus*) generation time and proportion of current breeding females by age. PLoS ONE 11(6): e0156682. https://doi:10.1371/journal.pone.0156682

Wikenros C, Gicquel M, Zimmermann B, Flagstad Ø, Åkesson M. 2021.Age at first reproduction in wolves: different patterns of density dependence for females and males. Proc. R. Soc. B 288: 20210207. https://doi.org/10.1098/rspb.2021.0207

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View results

Respondent

3 Anonymous

12:49
Time to complete

## Conflict of Interest Disclosure

1. ID Number (if provided in request email, otherwise leave blank)

2. Report or Rulemaking Name (provided in request email) *

Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

3. Point of Contact Email (the **@fws.gov** address provided in request email) *

Craig_Hansen@fws.gov

4. Your Full Name (First, Last) *

Mark Ditmer

5. Telephone (work/professional) *

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6. Address (work/professional) *

240 W Prospect Road Fort Collins, CO 80526

7. Email Address (work/professional) *

mark.ditmer@usda.gov

8. Current Employer *

USDA Forest Service Rocky Mountain Research Station

## Instructions

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## Instructions (continued)

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The term "conflict of interest" applies not only to the personal interests of the individual but also to the interests of others with whom the individual has substantial common financial or other interests if these interests are relevant to the functions to be performed. Thus, in assessing an individual's potential conflicts of interest, consideration must be given not only to the interests of the individual but also to the interests of the individual's spouse and minor children, the individual's employer, the individual's business partners, and others with whom the individual has substantial common financial or other interests. Consideration must also be given to the interests of those for whom one is acting in a fiduciary or similar capacity (e.g., being an officer or director of a corporation, whether profit or nonprofit, or serving as a trustee).

Such interests could include an individual's stock holdings in excess of $10,000 in a potentially affected company or being an officer, director, or employee of the company. Serving as a consultant to the company could constitute such an interest if the consulting relationship with the company could be directly affected or is directly related to the subject matter of the regulatory process.

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## Employment

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9. If you are employed or self-employed, could your current employment or self-employment (or your spouse's current employment or self-employment) be directly affected? *

No

10. To the best of your knowledge, could any financial interests of your (or your spouse's) employer or, if self-employed, your (or your spouse's) clients and/or business partners be directly affected? *

No

11. If you are an officer, director or trustee of any corporation or other legal entity, could the financial interests of that corporation or legal entity be directly affected? *

Not applicable

12. If you are a consultant (whether full-time or part-time), could there be a direct effect on any of your current consulting relationships? *

Not applicable

13. Regardless of the potential effect on the consulting relationship, do you have any current or continuing consulting relationships (including, for example, commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, serving as an expert witness in litigation, or providing services in exchange for honorariums and travel expense reimbursements) that are directly related to the subject matter of the possible government regulatory action or inaction? *

No

14. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Employment (continued)

15. If you are or have ever been a U.S. Government employee (either civilian or military), to the best of your knowledge, are there any federal conflict of interest restrictions that may be applicable to your service in connection with this peer review? *

No

16. If you are a U.S. Government employee, are you currently employed by the Service? *

Yes

17. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

I am a research ecologist with USDA's Forest Service - Rocky Mountain Research Station

## Investment Interests

Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interest valued at less than $10,000), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

18. Do you or your spouse or minor children own directly or indirectly (e.g., through a trust or an individual account in a pension or profit-sharing plan) any stocks, bonds or other financial instruments or investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

19. Do you have any other significant financial investments or interests such as commercial business interests (e.g., sole proprietorships), investment interests (e.g., stock options), or personal investment relationships (e.g., involving parents or grandchildren) that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

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23. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

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No

25. If you answered "Yes" to the question above, briefly describe the circumstances.

I listed "No" above but I want to disclose that before my current position with USDA, I had a research position with Colorado State University with a focus of studying wolf reintroduction to Colorado.

## Research Funding and Other Interests (continued)

26. Is the central purpose of the proposed rule for which this disclosure form is being prepared a critical review and evaluation of your own work or that of your employer? *

No

27. Do you have any existing professional obligations (e.g., as an officer of a scientific or engineering society) that effectively require you to publicly defend a previously established position on an issue that is relevant to the proposed rule? *

No

28. To the best of your knowledge, will your participation in this peer review process enable you to obtain access to a competitor's or potential competitor's confidential proprietary information? *

No

29. Could your service as a peer reviewer create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests? *

No

30. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

I did not answer "Yes" to either 26 or 27 but wanted to point out that I have published results about wolf reintroduction in Colorado. I do not see this process as part of a critical review of my work nor do I need to defend positions in those manuscripts within professional societies. That being said, having published these studies, I will likely view this review from a specific lens.

1. Is our description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species accurate?

The description of the biology, habitat, population trends, conservation status, and historical and current distribution of gray wolves is accurate with no known major omissions. I do suggest citing Smith et al. 2010 (which is cited later for other reasons) after "Until recently, only lone wolves had been confirmed in Colorado…".

2. Are there any significant oversights, omissions, or inconsistencies?

The following line, while true of established wolf populations, may certainly not hold with a very small newly established population like the NEP here. "The high reproductive potential of wolves, and their innate behavior to disperse and locate social openings or vacant suitable habitats, allows populations of gray wolves to withstand relatively high rates of human-caused mortality (Service 2020, pp. 8–9)." A possible related omission to this is the seasonality and connectivity needs of a reintroduction effort in CO. While summer provides a large amount of prey availability in higher elevations, where the risks of traffic-related mortalities, conflict with people and livestock may be generally lower (although certainly livestock on public lands in summer poses a risk for conflict), the winter movements of prey to lower elevations will require wolves to move to find prey. These lower elevations increase the probability of conflict with people, livestock, and vehicle-strikes. It seems the document omits the challenges associated with the needs for seasonal habitat connectivity (see Ditmer et al 2020). While it is true that wolf populations can be robust to human-caused mortality, without some consideration for the movements required by reintroduced individuals, it may be difficult to establish a viable population if placed near an area with a lot of conflict potential along with other problems if genetic connectivity within the NEP is not factored in.

3. Are the conclusions we reach logical and supported by the evidence we provide?

Yes – I think the designation for this population as nonessential is supported by logic and evidence. I also agree that the associated management flexibility will aid in the long-term success of reestablishment of a population by helping to ensure social acceptance of the reintroduction efforts.

However, regarding the "input on whether to allow lethal management of gray wolves that are having a significant impact to ungulate populations" – The document states that "authorization for removal of wolves would require a science-based determination that an unacceptable impact to a wild ungulate herd has occurred". This process is not described in any detail here. Who would make this "science-based determination"? Given that "herd management plans consider both biological and social factors when setting herd objective ranges" it seems that real metrics should be put in place to ensure a valid and independent review, if this is going to be the policy, ahead of time to reduce controversy if or when the issue arises. Colorado is known to have some of the most abundant ungulate populations among

Western states (see Bergman et al. 2015 & Lukacs et al. 2018), and while some herd units have seen declines, as stated on page 10267, ensuring a transparent plan for assessing the true impacts of wolf predation on herd populations should be paramount.

Bergman, E. J., P. F. Doherty, G. C. White, and A. A. Holland. 2015. Density dependence in mule deer: a review of evidence. Wildlife Biology 21:18–29.

Lukacs, P. M., M. S. Mitchell, M. Hebblewhite, B. K. Johnson, H. Johnson, M. Kauffman, K. M. Proffitt, P. Zager, J. Brodie, K. Hersey, A. A. Holland, M. Hurley, S. McCorquodale, A. Middleton, M. Nordhagen, J. J. Nowak, D. P. Walsh, and P. J. White. 2018. Factors influencing elk recruitment across ecotypes in the Western United States. The Journal of Wildlife Management 82:698–710.

4. Did we include all the necessary and pertinent literature to support our assumptions, arguments, and conclusions?

I found that the literature was sufficient to support the assumptions, arguments, and conclusions. However, as stated above, aspects about the likely highly seasonal movements and associated connectivity needs (gene flow, etc) are included, far more literature will be needed in the “Movement Ecology” section which only touches on dispersal.

5. Are there additional considerations regarding the geographic boundary of the NEP, the adequacy of the proposed regulations for the NEP, or additional management that may be needed to address expanding gray wolf populations?

The risks to successful establishment of a wolf population in CO and the types of conflict/costs and their overall likelihood varies spatially within the expansive NEP geographic boundary. I expected additional details on how management may need to adjust to better manage the expansion or dispersal of the population, given the conflict risk types throughout the state, given the area of potential reintroduction sites is also very large and diverse. For instance, given the spatial overlap of high prey density and livestock operations in the northwestern portion of the state, far more effort into reducing conflict with livestock may be necessary. In contrast, other portions of the state, where there is far more wilderness (which improves wolf survival – see Barber-Meyer et al. 2021) there may not need to be as many management considerations since the main sources of mortality might be roads of mistaken species identification by hunters.

Barber-Meyer, S. M., T. J. Wheeldon, and L. D. Mech. 2021. The importance of wilderness to wolf (*Canis lupus*) survival and cause-specific mortality over 50 years. Biological Conservation 258:109145.

APPROVED

View results

Respondent

5 Anonymous

04:01
Time to complete

## Conflict of Interest Disclosure

1. ID Number (if provided in request email, otherwise leave blank)

2. Report or Rulemaking Name (provided in request email) *

Proposed Establishment of a Nonessential Experimental Population of the Gray Wolf (Canis lupus) in Colorado

3. Point of Contact Email (the **@fws.gov** address provided in request email) *

Craig_Hansen@fws.gov

4. Your Full Name (First, Last) *

Julia Smith

5. Telephone (work/professional) *

360-790-1029

6. Address (work/professional) *

1111 Washington St. SE, Olympia, WA 98501

7. Email Address (work/professional) *

julia.smith@dfw.wa.gov

8. Current Employer *

Washington Department of Fish and Wildlife

## Instructions

It is essential that a peer reviewer used by the U.S. Fish and Wildlife Service as part of its peer review of proposed rules under the Endangered Species Act (ESA or Act) report any conflict of interest. For this purpose, the term "conflict of interest" means any financial or other interest which conflicts with the service of the individual because it (1) could significantly impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization. In those situations in which the Service determines that a conflict of interest is unavoidable we will publicly disclose the conflict of interest.

The term "conflict of interest" means something more than individual bias. There must be an interest that could be directly affected by your participation as a peer reviewer. Conflict of interest requirements are objective and prophylactic. They are not an assessment of one's actual behavior or character, one's ability to act objectively despite the conflicting interest, or one's relative insensitivity to particular dollar amounts of specific assets because of one's personal wealth. Conflict of interest requirements are objective standards designed to eliminate certain specific, potentially compromising situations from arising, and thereby to protect the individual, the Service, and the public interest. The individual and the Service should not be placed in a situation where others could reasonably question, and perhaps discount or dismiss, the information produced through the peer review simply because of the existence of conflicting interests.

## Instructions (continued)

The term "conflict of interest" applies only to current interests. It does not apply to past interests that have expired, no longer exist, and cannot reasonably affect current behavior. Nor does it apply to possible interests that may arise in the future but do not currently exist, because such future interests are inherently speculative and uncertain. For example, a pending formal or informal application for a particular job is a current interest, but the mere possibility that one might apply for such a job in the future is not a current interest.

The term "conflict of interest" applies not only to the personal interests of the individual but also to the interests of others with whom the individual has substantial common financial or other interests if these interests are relevant to the functions to be performed. Thus, in assessing an individual's potential conflicts of interest, consideration must be given not only to the interests of the individual but also to the interests of the individual's spouse and minor children, the individual's employer, the individual's business partners, and others with whom the individual has substantial common financial or other interests. Consideration must also be given to the interests of those for whom one is acting in a fiduciary or similar capacity (e.g., being an officer or director of a corporation, whether profit or nonprofit, or serving as a trustee).

Such interests could include an individual's stock holdings in excess of $10,000 in a potentially affected company or being an officer, director, or employee of the company. Serving as a consultant to the company could constitute such an interest if the consulting relationship with the company could be directly affected or is directly related to the subject matter of the regulatory process.

An individual's other possible interests might include, for example, relevant patents and other forms of intellectual property, serving as an expert witness in litigation directly related to the subject matter of the regulatory process, or receiving research funding from a party that would be directly affected by the regulatory process if the research funding could be directly affected or is directly related to the subject matter of the regulatory process and the right to independently conduct and publish the results of this research is limited by the sponsor. Consideration would also need to be given to the interests of others with whom the individual has substantial common financial interests -- particularly spouses, employers, clients, and business or research partners.

The following questions are designed to elicit information from you concerning possible conflicts of interest that are relevant to the functions to be performed by your peer review.

During your period of service in connection with the activity for which this form is being completed, any changes in the information reported, or any new information, which needs to be reported, should be reported promptly by written or electronic communication to the responsible staff officer.

## Employment

If the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent document

9. If you are employed or self-employed, could your current employment or self-employment (or your spouse's current employment or self-employment) be directly affected? *

No

10. To the best of your knowledge, could any financial interests of your (or your spouse's) employer or, if self-employed, your (or your spouse's) clients and/or business partners be directly affected? *

No

11. If you are an officer, director or trustee of any corporation or other legal entity, could the financial interests of that corporation or legal entity be directly affected? *

No

12. If you are a consultant (whether full-time or part-time), could there be a direct effect on any of your current consulting relationships? *

No

13. Regardless of the potential effect on the consulting relationship, do you have any current or continuing consulting relationships (including, for example, commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, serving as an expert witness in litigation, or providing services in exchange for honorariums and travel expense reimbursements) that are directly related to the subject matter of the possible government regulatory action or inaction? *

No

14. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Employment (continued)

15. If you are or have ever been a U.S. Government employee (either civilian or military), to the best of your knowledge, are there any federal conflict of interest restrictions that may be applicable to your service in connection with this peer review? *

No

16. If you are a U.S. Government employee, are you currently employed by the Service? *

No

17. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Investment Interests

Taking into account stocks, bonds, and other financial instruments and investments including partnerships (but excluding broadly diversified mutual funds and any investment or financial interest valued at less than $10,000), if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

18. Do you or your spouse or minor children own directly or indirectly (e.g., through a trust or an individual account in a pension or profit-sharing plan) any stocks, bonds or other financial instruments or investments that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

19. Do you have any other significant financial investments or interests such as commercial business interests (e.g., sole proprietorships), investment interests (e.g., stock options), or personal investment relationships (e.g., involving parents or grandchildren) that could be affected, either directly or by a direct effect on the business enterprise or activities underlying the investments? *

No

20. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Property Interests

Taking into account real estate and other tangible property interests, as well as intellectual property (patents, copyrights, etc.) interests, if the information received by the Service through the peer review process were to provide the basis for government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

21. Do you or your spouse or minor children own directly or indirectly any such property interests that could be directly affected? *

No

22. To the best of your knowledge, do any others with whom you have substantial common financial interests (e.g., employer, business partners, etc.) own directly or indirectly any such property interests that could be directly affected? *

No

23. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

## Research Funding and Other Interests

Taking into account your research funding and other research support (e.g., equipment, facilities, industry partnerships, research assistants and other research personnel, etc.), if the information received by the Service through the peer review process were to provide the basis for

government regulatory action or inaction with respect to the species assessed within the pertinent draft SSA report --

24. Could the research funding and support for you or your close research colleagues and collaborators be directly affected, OR, if you have any research agreements for current or continuing research funding or support from any party whose financial interests could be directly affected, and such funding or support is directly related to the subject matter of the regulatory process, do such agreements significantly limit your ability to independently conduct and publish the results of your research? *

No

25. If you answered "Yes" to the question above, briefly describe the circumstances.

## Research Funding and Other Interests (continued)

26. Is the central purpose of the proposed rule for which this disclosure form is being prepared a critical review and evaluation of your own work or that of your employer? *

No

27. Do you have any existing professional obligations (e.g., as an officer of a scientific or engineering society) that effectively require you to publicly defend a previously established position on an issue that is relevant to the proposed rule? *

No

28. To the best of your knowledge, will your participation in this peer review process enable you to obtain access to a competitor's or potential competitor's confidential proprietary information? *

No

29. Could your service as a peer reviewer create a specific financial or commercial competitive advantage for you or others with whom you have substantial common financial interests? *

No

30. If you answered "Yes" to any of the questions above, briefly describe the circumstances.

April 24, 2023

Craig Hansen
Regional Recovery Coordinator - Mountain-Prairie Region
U.S. Fish and Wildlife Service

Dear Mr. Hansen,

Thank you for the opportunity to participate as a scientific peer reviewer of the U.S. Fish and Wildlife Service's (Service's) proposed rule to establish a nonessential experimental population (NEP) of the gray wolf (*Canis lupus*) in the State of Colorado, under section 10(j) of the Endangered Species Act of 1973, as amended (Docket No. FWS-R6-ES-2022-0100).

In reviewing the document, I considered the following questions:

1. Is the description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species accurate?
2. Are there any significant oversights, omissions, or inconsistencies?
3. Are the conclusions we reach logical and supported by the evidence we provide?
4. Did we include all the necessary and pertinent literature to support our assumptions, arguments, and conclusions?
5. Are there additional considerations regarding the geographic boundary of the NEP, the adequacy of the proposed regulations for the NEP, or additional management that may be needed to address expanding gray wolf populations?

*Minor comments:*

- I did not note any significant concerns with the accuracy of the description and analysis of the biology, habitat, population trends, conservation status, and historical and current distribution of the species.

- Given that this proposed rule contemplates and discusses donor populations from the Pacific Northwest, it may be worth updating Figure 2 with the most recent information available to reflect expansion of wolf packs in Washington and Oregon (ODFW 2023, WDFW et al. 2023).

- The proposed rule states, “While there are no Federal recovery plans addressing wolf recovery in western States outside Idaho, Montana, and Wyoming, the States of California, Colorado, Oregon, Washington, and Utah have demonstrated a commitment to wolf conservation by developing management plans or codifying laws and regulations to protect wolves…” (pg. 10263).

    - I have concerns about including Utah in this list. The Utah Division of Wildlife Resources states, “In 2010, the Utah Legislature directed the Utah Division of

Wildlife Resources (DWR) to prevent any packs of wolves from establishing within the delisted portion of Utah (S.B. 36, Wolf Management Act). The law also directed the DWR to request that the U.S. Fish and Wildlife Service immediately remove any wolves discovered in areas of Utah where they are still listed under the Endangered Species Act" (from https://wildlife.utah.gov/wolves).

- Although Utah DWR has a statewide wolf management plan, prevention of establishment in the delisted portion of Utah and requests for immediate removal of endangered wolves elsewhere in the state cannot be defined as a commitment to wolf conservation, particularly in comparison with the other states listed above. I suggest removing Utah from that statement.

- The proposed rule states, "We have also requested input on whether to allow lethal management of gray wolves that are having a significant impact to ungulate populations. If allowed for the purpose of ungulate management, authorization for removal of wolves would require a science-based determination that an unacceptable impact to a wild ungulate herd has occurred and that removal of gray wolves would not impede wolf conservation" (pg. 10270).

    - I suggest defining specifically what would be considered a "significant impact" to ungulate populations and not using the term "unacceptable" impact. "Unacceptable" is value-based and subjective—a more objective, specific metric or term would be more appropriate. If using the word "unacceptable," specify to what or whom an impact (as specifically defined) is unacceptable.

- The proposed rule defines "problem wolves" as "wolves that we or our designated agents confirm to have attacked any other domestic animals twice within a calendar year are considered problem wolves for purposes of agency wolf control actions" (pg. 10271).

    - I suggest using a more objective term such as "depredating wolves" or "wolves implicated in livestock depredation."

    - Depredating twice within a calendar year does not indicate any specific or biologically-based pattern of depredation that wolf control would likely be effective in mitigating. I suggest consideration of other depredation pattern and wolf control strategies that have led to low levels of livestock depredation and wolf removals in other states (see WDFW wolf-livestock interaction protocol, available at https://wdfw.wa.gov/sites/default/files/2020-09/20200915_wdfw_wolf_livestock_interaction_protocol.pdf.)

- Table 1 on pg. 10271 has two provisions for taking wolves "in the act of attacking" livestock as well as two on "additional taking" (pg. 10272). None of those provisions address "evidence of unusual attractants or artificial or intentional feeding" but it is important to address wolf attractants/feeding in these provisions as well for clarity, not only in the agency take provision.

- In the "Agency take" provision in Table 1 (pg. 10272), the Service may wish to add the additional consideration of what proactive, nonlethal deterrents were implemented (in addition to "evidence that animal husbandry practices recommended in approved allotment plans and annual operating plans were followed").

*Major comments:*

Overall, the proposed rule provides the necessary framework to establish a nonessential experimental population of wolves in Colorado and adequately addresses many important considerations. However, the proposed rule does not adequately address interchange between wolves in the NEP area and Mexican gray wolves (*Canis lupus baileyi*), nor does it propose any management strategies that consider both expanding populations and the likelihood of connectivity/interaction between them.

The section of the proposed rule "*Other Considerations*" (pg. 10273) considers that gray wolves in Colorado may disperse far enough south to encounter Mexican wolves but does not consider the opposite scenario—that Mexican wolves may disperse northward and encounter gray wolves in the NEP area. This scenario is highly likely and should be anticipated. Although the NEP area and the Mexican Wolf Experimental Population Area (MWEPA) are separate and have discrete boundaries, these two population areas are well within documented dispersal distances for wolves (Jimenez et al. 2017). Odell et al. 2018 list examples of extensive dispersal movements of wolves from the Northern Rocky Mountains (NRM) population to Arizona and New Mexico and note "potential for Mexican wolves to move from extra-limital recovery areas northward through well connected habitat into areas occupied by Northwestern gray wolves. Mexican wolves from the current Arizona-New Mexico population have dispersed distances in excess of 250 km" (Odell et al. 2018, pg. 294). Given the high likelihood that these two wolf populations will exchange dispersers and eventually expand into the habitat between them, the proposed rule should consider the following ideas:

The section of the proposed rule "*Means To Identify the Experimental Population*" (pg. 10269) states that "any wolf within the State of Colorado will be considered part of the NEP regardless of its origin." Does that include Mexican gray wolves? The proposed rule should answer that question.

This section also states, "…the small numbers of individuals likely to occupy the NEP following the release and the sizable distances between populations makes any potential interaction between individuals or a merging of populations highly unlikely" and "…gray wolves reintroduced into Colorado will be wholly geographically separate from the delisted portion of the NRM population as well as the remainder of the currently listed 44-State entity" (pg. 10269). These statements do not reflect the exceptional ability and propensity of wolves to disperse and expand into unoccupied suitable habitat, as demonstrated by the relatively rapid recovery of wolves in the NRM, Western Great Lakes, and Pacific Northwest (Wydeven et al. 2009, USFWS 2016, ODFW et al. 2023, WDFW et al. 2023). Initially, wolves reintroduced into Colorado may be wholly geographically separate from other wolf populations, but that could change with a few dispersal events. Over time, interaction between individuals and merging of populations should be considered as a true possibility.

The section of the proposed rule "*Other Considerations*" (pg. 10273) states that "if contact were to occur [between gray wolves reintroduced to Colorado and Mexican wolves], interbreeding could be a concern for the Mexican wolf, depending on its state of recovery at the time. If gray wolves come to occupy Mexican wolf recovery areas, these physically larger wolves are likely to dominate smaller Mexican wolves and quickly occupy breeding positions, as will their hybrid offspring."

As stated above, dispersal of individual wolves between these two populations as both expand is likely given wolf biology and should be anticipated. Although Odell et al. 2018 state concerns about genetic interchange between Mexican wolves and northerly gray wolves, other scientists believe that genetic admixture may benefit highly inbred populations such as Mexican wolves (Whiteley et al. 2015, Wayne and Shaffer 2016, Hedrick et al. 2018, Hendricks et al. 2019) and that "delineation of exact geographic boundaries presents challenges. Rather than sharp lines separating taxa, boundaries should generally be thought of as intergrade zones of variable width. These "fuzzy" boundaries are a consequence of lineages of wolves that evolved elsewhere coming into contact with each other. Historical or modern boundaries should also not be viewed as static or frozen in any particular time" (Chambers et al. 2012).

Furthermore, it is well-established that gene flow through hybridization followed by introgression has been fundamental in evolutionary history of all North American *Canis* populations (Heppenheimer et al. 2020; vonHoldt et al. 2011, 2018). The taxonomy and evolutionary history of wolves in North America are complex and controversial, with the number of subspecies described expanding and contracting since the early 1900s (Brewster and Fritts 1995). As many as 24 subspecies were described historically (Young and Goldman 1944; Hall and Kelson 1952, 1959), ranging to the more widely accepted number of five North American subspecies (Nowak 1983, 1995). However, some scientists have questioned whether subspecies lines should be drawn within the gray wolf species at all, given that isolation of wolf populations was largely driven by Pleistocene glaciation and human influence; levels of dispersal, gene flow, and intergradation of wolf populations are high without these barriers (Nowak 1983, Brewster and Fritts 1995). All wolves in western North America are widely recognized as a single species, but "the science pertaining to gray wolf subspecies designations, unique evolutionary lineages, ecotypes, and admixture of formerly isolated populations continues to develop and remains unresolved" (USFWS 2019).

Brewster and Fritts (1995) suggest that local extinctions and subsequent recolonizations in an area by the nearest wolf population (even if considered a different subspecies or ecotype) were relatively common events in the evolutionary history of the species, documented multiple times in recent history particularly in island and peninsula populations. Historical glaciation and human-related extirpation (neither being present-day barriers for wolves) were major influences on isolation of wolves leading to differences in populations and subspecies, and areas being recolonized by or repopulated with the nearest wolf population has occurred both naturally and through human influence (Brewster and Fritts 1995). The propensity for dispersal and admixture, behavioral and adaptive plasticity of the species, and high levels of intergradation in populations and subspecies make certain political divisions of wolf populations questionable in the long-term. The proposed rule should consider and address the extensive literature available that

discusses the history and potential benefits of genetic interchange and admixture of wolf populations, not solely the possibility of genetic swamping noted by Odell et al. 2018.

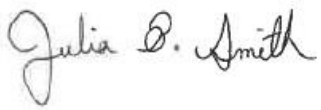
It is well-established that Mexican gray wolves are a genetically unique subspecies locally adapted to a particular habitat (Taron et al. 2021) and should be recognized and managed as such in the short-term. However, Odell et al. 2018 not only acknowledge historical intergradation between wolf subspecies but also indicate the intergradation zone falls within the MWEPA: "However, extensive skull measurements and documentation of phenotypic differences by those having experience with historical populations of wild southwestern wolves clearly place the zone of intergradation between the Mexican wolf and a larger Plains wolf (*Canis lupus nubilus*) in central Arizona and New Mexico…" (pg. 295-296).

In the long-term, the Service should consider the future of connectivity among different listed gray wolf entities in the western United States with the understanding of gene flow and population connectivity that occurred historically among wolf populations and subspecies across the western United States (recognizing that some wolf subspecies and ecotypes, including the Mexican wolf, are locally adapted) and plan for a future where that connectivity and interchange is allowed to occur naturally. Interchange among wolves in the NRM, the Pacific Northwest, and Canada has resulted in robust, genetically diverse wolf populations. The Service may wish to consider the opportunity of wolf restoration in Colorado as a potential link in connectivity between wolf populations, subspecies, and listed entities rather than create artificial boundaries and barriers to dispersal (that involve costly, intensive, and invasive management) that may prolong and possibly hinder long-term recovery of both wolves in the NEP area and MWEPA. At the very least, the proposed rule should consider that interchange of dispersing wolves from both populations is likely to occur (given that the boundaries of the NEP area and MWEPA are <150 miles apart in some places).

The Service may wish to reconsider their statement that "hybrid population(s) thus derived will not contribute towards recovery because they will significantly threaten integrity of the listed entity" (pg. 10273) in the context of the information provided above (in particular, see vonHoldt et al. 2018), recognizing that all gray wolves (*Canis lupus*) in western North America (whether originating in the NRM, the NEP area, or the MWEPA) are widely recognized as one species (USFWS 2019). Short-term genetic and management considerations should not preclude long-term conservation opportunities.

Thank you again for the opportunity to participate in the Service's rule making process as a scientific peer reviewer.

Respectfully,



Julia B. Smith
Wolf Policy Lead
Washington Department of Fish and Wildlife

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