Biological Opinion Regarding the Designation of a Non-essential Experimental Gray Wolf (*Canis lupus*) Population within the State of Colorado

Species addressed
Gray Wolf (*Canis lupus*)

Prepared by the
U.S. Fish and Wildlife Service
Colorado Ecological Services Field Office
July 2023

Contents

Introduction 1
Consultation History 1
Description of the Proposed Action 2
Status of the Species 4
Environmental Baseline 5
Effects of the Action 7
Cumulative Effects 10
Conclusion 11
Incidental Take Statement 12
References Cited 13

Introduction

On November 3, 2020, the U.S. Fish and Wildlife Service (Service) published a final rule to delist two listed gray wolf (*Canus lupus*) entities under the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq*.). The rule was 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)). 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 as of February 10, 2022. Wolves within the Northern Rocky Mountain (NRM) distinct population segment (DPS) are not listed, which includes Idaho, Montana, Wyoming, north-central Utah, eastern Oregon, and eastern Washington.

The State of Colorado, specifically Colorado Parks and Wildlife (CPW), is reintroducing gray wolves to the state. In support of that effort and at the State of Colorado's request, the Service published a proposed rule on February 17, 2023, to designate the reintroduced population of gray wolves as non-essential and experimental under section 10(j) of the Act. This biological opinion assesses the effects to gray wolves of implementing the final section 10(j) rule within the State of Colorado. We do not anticipate effects to other federally listed species within the action area. The biological opinion relies upon information obtained from multiple previous Service biological opinions involving gray wolves, the 5-year status review of the species, published literature, Service reports, and internal species experts.

Consultation History

This is an intra-service consultation with the Service, therefore no external communication occurred between an action agency and the Service in this consultation. A complete record of consultation and coordination is contained in the decision record.

BIOLOGICAL OPINION

Description of the Proposed Action

The Service proposes to designate the gray wolf population proposed to be reintroduced into Colorado by CPW as a non-essential experimental population (NEP) under section 10(j) of the Act. The Service has regulatory authority under the Act to manage the conservation and recovery of federally listed threatened and endangered species, including the federally listed endangered gray wolf. This authority extends to creating rules and regulations for legitimate activities that would otherwise be prohibited by Federal law. The Service is not reintroducing gray wolves, therefore does not retain any discretion or authority over the reintroduction. Furthermore, the State's reintroduction does not rely on the section 10(j) rule for its justification.

The section 10(j) rule provides flexibility to the Service and its designated agents, as defined in the rule, for the management of the reintroduced gray wolf in Colorado. The Service uses the term "gray wolf" to refer to *Canis lupus*, separate from the Mexican wolf (*C. lupus baileyi*).

Any population determined by the Secretary of the Interior to be an experimental population shall be treated as if it were listed as a threatened species for purposes of establishing protective regulations under section 4(d) of the Act with respect to such population. The special rules (protective regulations) adopted for an experimental population under 50 CFR § 17.81, will contain applicable prohibitions, as appropriate, and exceptions for that population (50 CFR § 17.82).

The proposed action is the establishment of the protective measures (prohibitions) pursuant to section 9(a)(1) of the Act as follows:

Section 9 (a) GENERAL. — (1) Except as provided in sections 6(g)(2) and 10 of the Act, with respect to any endangered species of fish or wildlife listed pursuant to section 4 of the Act it is unlawful for any person subject to the jurisdiction of the United States to—
(A) import any such species into, or export any such species from the United States
(B) take any such species within the United States or the territorial sea of the United States
(C) take any such species upon the high seas
(D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C)
(E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species
(F) sell or offer for sale in interstate or foreign commerce any such species; or
(G) violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed pursuant to section 4 of this Act and promulgated by the Secretary pursuant to authority provided by this Act.

As stated above, the section 10(j) rule contains exceptions to the prohibitions, defined below in the Effects of the Action section, and codified in the final Colorado gray wolf section 10(j) rule. The exceptions to those prohibitions are as follows:

- Opportunistic harassment that leads to harm
- Intentional harassment (use of non-lethal munitions)
- Lethal take of gray wolves in the act of attacking livestock on private land
- Lethal take of gray wolves in the act of attacking livestock on public land
- Additional lethal taking of gray wolves by private citizens on their private land
- Additional lethal taking of gray wolves by grazing permittees on public land
- Agency lethal take of gray wolves that repeatedly depredate on livestock
- Non-lethal and/or lethal management of gray wolves that are having an unacceptable impact to ungulate herds or populations on Tribal lands (as defined in 510 FW1, exhibit 1).
- Incidental take associated with the excepted activities
- Additional taking of gray wolves by agency employees and the Service's designated agents. Any Service employee or our designated agent may take a gray wolf from the NEP consistent with the section 10(j) rule. This exception includes:
    - Take related to the release, tracking, monitoring, recapture, and management for the NEP. Techniques include:
        1) Capture, handle, anesthetize, collar, track, tag, and collect biological samples:
            a) Capture techniques that may be utilized include:
                i) Various foot-hold traps based on circumstances and objectives of the action if the Service has reviewed and approved the method as a safe alternative for capturing wolves.
                ii) Darting from the ground or aerial operations.
                iii) Net-gunning during helicopter operations.
                iv) Other techniques may be used only after the Service has reviewed and approved the method as a safe alternative for capturing wolves.

    - To aid or euthanize sick, injured, or orphaned wolves or transfer to a licensed veterinarian for care
    - To dispose of a dead specimen
    - To salvage a dead specimen that may be used for scientific study
    - To aid in law enforcement investigations involving wolves (collection of specimens for necropsy, etc.)
    - To remove wolves with abnormal physical or behavioral characteristics, as determined by the Service or our designated agent, from passing on to offspring or teaching those traits to other wolves.

Action Area

The action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR 402.02). The Service has determined that the action area for the proposed action includes the entirety of the state of Colorado. We do not include areas outside of the State of Colorado, because our action is limited to the promulgation of a 10(j) rule which specifies a boundary identified as the state of Colorado. The 10(j) rule does not apply beyond this boundary; therefore, the permissible take and any incidental take of gray wolves under the section 10(j) rule does not extend beyond this boundary. There is no designated critical habitat for the gray wolf.

Status of the Species

Gray wolf

Species description – Gray wolves are the largest wild members of the Canidae, or dog family, with adult males typically ranging from 43 to 45 kilograms (kg) (95 to 100 pounds (lbs)) and adult females, ranging from 36 to 39 kg (80 to 85 lbs) (Mech 1970, p. 11). Wolves are typically 1.5 to 1.8 meters (5 to 6 feet) in length from nose to tail tip. Most wolves stand 66 to 81 cm (2 to 2.5 feet) tall at the shoulder. Tracks are normally 5 inches long by 4 inches wide (WDFW 2023).

Gray wolves have long legs that are well adapted to running, allowing them to move fast and travel far in search of food, and large skulls and jaws, well suited to catching and feeding on large mammals (Mech 1970, pp. 13-14). Wolves also have keen senses of smell, hearing, and vision, which they use to detect prey and one another. Pelt color varies in wolves more than in almost any other species, from white, to grizzled gray, to coal black (Mech 1970, pp. 15-16).

Listing status – Gray wolves were originally listed under the Act in 1973 as a subspecies or as regional populations of subspecies in the contiguous United States and Mexico. In 1978, the gray wolf was reclassified as an endangered population under the Act at the species level (*C. lupus*) throughout the contiguous United States and Mexico (including Colorado), except for the Minnesota (Western Great Lakes) gray wolf population, which was classified as threatened (43 FR 9607-9615). The gray wolf and Mexican wolf are separate listed entities under the Act, and the term "gray wolf" as a listed entity encompasses several subspecies, except the Mexican wolf.

All the Service's recovery planning efforts and gray wolf-related rulemakings since the promulgation of the 1978 rule listing gray wolves have reflected the intent that gray wolves would be managed and recovered in three distinct areas of the lower 48 States and include the NRM, the Western Great Lakes (WGL), and the Southwest. Our 2020 delisting rule for gray wolves (below), was an effort to recognize recovery in two (NRM and WGL) of these three areas.

On November 3, 2020, we published a final rule delisting the gray wolf and removed it from the list of Endangered and Threatened Wildlife (85 FR 69781). Our 2020 delisting rule for the gray wolf provides detailed regulatory actions, predecessor legislation, and where applicable, outcomes of court challenges to those actions (85 FR 69781). Although our November 3, 2020, delisting rule removed gray wolves from protected status, a February 10, 2022, court decision vacated and remanded our 2020 delisting rule and returned the gray wolf to the list of endangered and threatened wildlife (*Defenders of Wildlife* v. *U.S. Fish & Wildlife Serv.,* No. 21-CV-00344-JSW, 2022 WL 499838 (N.D. Cal. Feb. 10, 2022)), except the delisted NRM distinct population segment (DPS). Wolves in the NRM DPS (Montana, Idaho, Wyoming, north-central Utah, eastern Oregon, and eastern Washington) are not currently listed. In summary, gray wolves are not listed in the NRM, are listed as threatened in Minnesota, and endangered in all other states or portions thereof which we refer to as the 44-state listed entity.

Abundance – Based on our 2020 biological report, there are over 6,000 gray wolves in the contiguous United States, including more than 4,300 wolves outside of the NRM delisted entity.

Large, growing, or stable metapopulations of gray wolves now inhabit two separate and ecologically diverse areas of the lower 48 United States (western U.S. metapopulation and Great Lakes metapopulation) and are bolstered by connections with even larger populations of wolves to the north in Canada (Service 2020).

Table 1 summarizes the most recent minimum counts of individual gray wolves based on survey data for the endangered and threatened populations of gray wolves (S. Becker, pers. comm., USFWS 2023).

Table 1. Minimum counts of individual wolves in the 44-state listed entity.

State	Status	Year(s) of data collection	Counts
Minnesota (WGL Population)	Threatened	2021-2022	2,691
Wisconsin (WGL Population)	Endangered	2021-2022	972
Michigan (WGL Population)	Endangered	2022	631
Western Washington	Endangered	2022	51
Western Oregon	Endangered	2022	38
California	Endangered	2022	18
Colorado	Endangered	2023	2

Threats – The greatest threat to wolves is excessive human-caused mortality but may also include certain diseases that could affect gray wolves and their prey (85 FR 69778-69895).

Additional gray wolf status information may be found in the *Gray Wolf Biological Report, Information on the Species in the Lower 48 United States* (USFWS 2020).

Environmental Baseline

Environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline (50 CFR 402.02).

In Colorado, gray wolves historically inhabited most of the state but were extirpated in the 1940s. Since the 1995 and 1996 gray wolf reintroductions into the NRM, gray wolves have occasionally been documented in Colorado. The first confirmed gray wolf in Colorado in

modern times was struck and killed by a vehicle near Idaho Springs in 2004. Since then, four additional lone wolves were confirmed through 2015, but no resident packs were documented in the state until 2020. In January 2020, CPW field personnel followed up on sighting reports from the public and confirmed at least six wolves traveling together in extreme northwest Colorado. Later that year, the group was reduced to a single individual; presently, there is no indication that any gray wolf or wolves remain in that area of the state. Separately, in north-central Colorado, a dispersing female from Wyoming was documented during summer 2019 and paired up with another gray wolf during winter 2020/2021. This pair produced offspring in spring 2021, becoming the first documented reproductively active pack in Colorado in recent history. By the end of 2021, this pack contained the only known wolves in the state, comprising eight individuals. No evidence of reproduction in this pack was documented in 2022 (87 FR 43489-43491).

At present, there are only two known individuals that remain of the original eight gray wolves in north-central Colorado. There are no known populations of gray wolves in the action area. We define a wolf population as two breeding pairs successfully raising at least two pups for two consecutive years (Service 1994, Appendix 8). A summary of gray wolf sightings in Colorado are displayed in Table 2; additional details regarding each report is available in CPW's Colorado Wolf Restoration and Management Plan (2023).

Table 2. Summary of Gray Wolf Sighting in Colorado 2004-2021 (CPW 2023, p. 4).

Date	***Location***	***Origin***	***Sex***	***Color***	***Outcome***
06/07/2004	Near Idaho Springs, CO	Unknown	Female	Gray	Found by the side of I-70, deceased
02/16/2007	North Park, CO	Unknown	Unknown	Black	Video taken by Colorado Division of Wildlife (CDOW) staff.
02/2009	North of Rifle, CO	Montana, Mill Creek 314F	Female	Gray	Presumed poisoned.
04/2015	Middle and North Park, CO	Wyoming, 935M	Male	Black	Trail camera and radio collar data.
04/29/2015	Kremmling, CO	Unknown	Male	Gray	Mistakenly shot by coyote hunter.
11/12/2018	Divide, CO	Colorado Wolf and Wildlife Center	Male	Mexican Wolf	Captive raised wolf escaped from facility near Divide, CO. Animal was recaptured.
07/08/2019	North Park, CO	Wyoming, F1084, Snake River Pack	Female	Black	Wolf was photographed in North Park, CO.

Date	***Location***	***Origin***	***Sex***	***Color***	***Outcome***
01/06/2020	Moffat County	Unknown	Group of approximately six	N/A	Scavenged elk carcass and prints reported. Genetic analysis of scat was conducted. CPW staff later confirmed a group of at least six wolves.
01/19/2021	Jackson County	Unknown	Male	Gray	Visually confirmed and collared by CPW staff. Wolf now identified as 2101.
06/04/2021	Jackson County	Unknown	Male and Female	Varied	Visual confirmation of six pups with F1084 and 2101 by CPW staff.

Effects of the Action

Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR § 402.02). Effects of the action in this circumstance are related to the management actions proposed to be excepted from section 9 take prohibitions in the 10(j) rule, described above.

Opportunistic and Intentional Harassment – "In the definition of "take" in the Act, harass means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering" (50 CFR § 17.3).

Opportunistic harassment includes scaring wolves with noise (yelling or shooting firearms into the air), movement (running or driving toward the wolf), or objects (throwing a rock at a wolf or releasing bear pepper spray). Such harassment is likely be of limited duration and unlikely to result in any injuries to the wolf. Opportunistic harassment will likely be the most frequently employed method of wolf management within the action area. However, we cannot anticipate where, when, or how often this method of management will occur. We recognize that this type of harassment could result in incidental injury or mortality of an individual, which would normally be considered take in the form of harm. Such harassment is allowed only when there are not purposeful actions to attract, track, wait for, or search out the wolf. Therefore, we believe that injury or death of a wolf from opportunistic harassment is discountable or highly unlikely to occur.

Intentional harassment includes 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. Without the 10(j) exception, these actions would normally be considered take in the form of harm. The purpose of intentional harassment is to scare gray wolves away from livestock or other locations where wolves could interact with humans. While the intent of intentional harassment is not to cause serious physical injury or death, use of less-

than-lethal munitions could potentially result in these effects. Such harassment is allowed only when there are not purposeful actions to attract, track, wait for, or search out the wolf. Therefore, we believe that serious injury or death of a wolf from intentional harassment is discountable. As with opportunistic harassment, we cannot predict when, where, or how often this method of take will be used to manage wolves.

Intentional take of gray wolves resulting in mortality – The Colorado section 10(j) rule includes provisions that allow for lethal control of gray wolves. These provisions include killing of wolves caught in the act of attacking livestock, limited written authorizations to take "repeatedly depredating wolves" (limited to 45 days or when the issue has been resolved, whichever is of lesser duration), and agency take of wolves that repeatedly depredate on livestock. Intentional take of gray wolves resulting in mortality is also allowed when wolves pose a demonstratable threat to human health and safety. We define "in the act of attacking" as the actual biting, wounding, grasping, or killing of livestock, or guarding and herding dogs, or a reasonable person believes this behavior is likely to occur at any moment. In situations of repeated depredations on grazing allotments, the Service or our designated agents may issue written take authorizations to landowners or livestock producers (both terms defined in the section 10(j) rule) to remove wolves involved in repeated depredation of livestock.

Additional taking of gray wolves by agency employees and the Service's designated agents – This exception contains provisions for the Service or our designated agents to recapture wolves for various purposes that may incidentally result in injury or death of individuals. However, we believe injury or mortality will be rare and is therefore discountable. Some of the provisions in this exception will result in the purposeful death of individuals including euthanasia, or removal of wolves with abnormal physical or behavioral characteristics such as chronic depredating behavior, wolf hybrids, etc. The goal of the latter provision is to ensure that abnormal physical or behavioral characteristics are not passed on to offspring or taught to other wolves.

Non-lethal and/or lethal management of gray wolves that are having an unacceptable impact to ungulate herds or populations on Tribal lands (as defined in 510 FW1, exhibit 1)– This exception applies only to tribal lands in Colorado, and requires a science-based proposal that must, at a minimum, include the following information:

1. The basis of ungulate population or herd management objectives;
2. Data indicating that the ungulate herd is below management objectives;
3. Data indicating that wolves are a major cause of the unacceptable impact to the ungulate population;
4. Why wolf removal is a warranted solution to help restore the ungulate herd to management objectives;
5. The level and duration of wolf removal being proposed;
6. How ungulate population response to wolf removal will be measured and control actions adjusted for effectiveness; and
7. Demonstration that attempts were and are being made to address other identified major causes of ungulate herd or population declines or of Tribal government commitment to implement possible remedies or conservation measures in addition to wolf removal.

The proposal must be subjected to both public and peer review prior to it being finalized and submitted to the Service for review. At least three independent peer reviewers with relevant expertise in the subject matter that are not staff of the Tribe submitting the proposal must be used to review the proposal. Upon Service review, and before wolf removals can be authorized, the Service will evaluate the information provided by the requesting Tribe and provide a written determination to the requesting tribal game and fish agency on whether such actions are scientifically based and warranted.

Attempting to analyze the effects of managing wolves to mitigate unacceptable impacts to ungulate populations is difficult. A literature review by the National Research Council evaluated several studies regarding wolf management for the benefit of ungulate populations in Alaska and western Canada. The authors concluded that few studies contain sufficient data to determine whether wolf and/or bear reductions caused an increase in adult populations of moose or caribou (National Research Council 1997, p 183). The authors concluded that to benefit wild ungulate populations (moose and caribou), wolf reductions should be conducted over an area of at least 10,000 km^2 (3,651 mi^2) area where wolves are the primary predator of all age classes of the targeted ungulates, and wolves should be reduced to at least 55 percent of the pre-control numbers for a period of at least 4 years National Research Council 1997, p 184). We used this information as a surrogate to aid in our analysis since there are few, if any, studies where elk (*Cervus spp.*) and deer (*Odocoileus spp.*) are the primary prey of gray wolves, and wolves were removed to benefit wild ungulate populations. We cannot meaningfully predict what the gray wolf population will be in the future and cannot predict how many wolves would be removed to benefit wild ungulate herds or populations on Tribal lands.

Although this exception was included in the NRM and Mexican wolf 10(j) rules, it has never been utilized by the states or Tribes in those areas. The Service believes that future implementation of this exception is unlikely to be utilized until gray wolf numbers in Colorado reach populations levels well above CPW's goals for state delisting of the species (150-200 wolves). We assume, based on the requirements of utilizing the exception, that wolf removal on Tribal reservations in Colorado will likely be relatively low compared to future wolf population in Colorado, and is unlikely to jeopardize the continued existence or the continued recovery of gray wolves in the wild. Furthermore, the Service will provide final approval for any plan to remove wolves on Tribal lands for the benefit of wild ungulate populations.

Incidental injury or mortality of wolves may be caused by the following activities: capture, handle, anesthetize, collar, track, tag, and collect biological samples.

1. For capture and immobilization:
    a. Individuals may be prevented from completing normal behaviors such as foraging and thermoregulation. During capture and immobilization of individuals, wolves may exhibit stress behaviors leading to injury or mortality. During anesthetization, tissue collection, or DNA sample collection, individual wolves will be exposed to temporary harm and may incur incidental injury or mortality.
    b. In a 2020 study, gray wolf injuries resulting from trapping were analyzed and the most common injuries for all foothold traps were mild edema or hemorrhage, minor subcutaneous soft tissue maceration or erosion, and minor (superficial) periosteal

abrasion; 1.6% had evidence of directed biting, and no wolves died from trap-related stress or injury (White et al 2021).

2. For handling and collection of biological samples:
   Handling of wolves is necessary to mark them and collect other biological information. After being captured, chemical immobilization may be necessary. Some injury can occur during handling and collection of biological samples. These are typically stress, swelling, superficial lacerations, and other minor injuries.

3. For marking and collaring:
   Collars have been known to cause unintended injuries, especially if improperly fitted. Passive Integrated Tags may also be inserted under the skin of captured wolves, but the effect of that technique is insignificant.

Within the section 10(j) area, CPW will employ a "hard release" technique when wolves are reintroduced. The hard release technique is conducted without the benefit of pre-release conditioning of wolves to the area. In Idaho, during the early part of the NRM reintroduction in the mid-1990s, agency personnel used this technique. Similar take provisions were allowed under the NRM section 10(j) rule including intentional take to control depredating wolves. The percentage of wolves removed from the Idaho population varied from 0 to 5 percent of the minimum number of wolves known alive (annual count) during the first 10 years of that reintroduction effort (S. Becker, pers. comm., USFWS 2022). During that same period, the minimum number of wolves alive in the population steadily increased from 14 wolves in 1995 up to 476 wolves by 2004 (Scott Becker, USFWS, pers comm 2022). We anticipate similar levels of control of wolves in Colorado and a similar increase in the wolf population during the initial years of reintroduction.

The anticipated level of control (e.g., approximately 5 percent per year) of wolves in Colorado represents a small percentage of the estimated number of wolves in the 44-state listed entity, thus is unlikely to negatively affect the survival or continued recovery of gray wolves in the wild.

Cumulative Effects

Cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR § 402.02). We do not consider future Federal actions that are unrelated to the proposed action in this section because they require separate consultation pursuant to section 7 of the Act.

The State of Colorado Gray Wolf Restoration and Management Plan

Colorado Revised Statue 33-2-105.8 directs the CPW to take the steps necessary to begin reintroductions of gray wolves to a portion of the species' historical range in Colorado by December 31, 2023. The Colorado Wolf Restoration and Management Plan, released in early 2023, details the State's reintroduction and management effort, which CPW would undertake in cooperation with Federal agencies. The plan states that wolf reintroduction efforts would require

the transfer of about 30 to 50 wolves over a 3- to 5-year period from states within the NRM, with assistance from other state wildlife management agencies. Based on the Technical Working Group recommendations, CPW would aim to capture 10 to 15 wild wolves annually from several different packs over the course of 3 to 5 years by trapping, darting, or net gunning in the fall and winter. These captures may be done by agency staff, contractors, or private trappers. The total number of wolves relocated in any year and in total would depend on capture success, continued participation by the cooperating states, and the degree to which relocated animals remain in Colorado and survive. After the release of 30 to 50 animals over the 3-to 5-year timeframe, active reintroduction would stop, and post-release monitoring would inform managers if the effort to establish a self-sustaining wolf population in Colorado has been successful.

We are not aware of any other cumulative effects that are reasonably certain to occur that will affect gray wolves within the action area.

Conclusion

Implementing regulations for section 7 defines "jeopardize the continued existence of" as "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR § 402.02). After reviewing the status of the 44-state listed entity of gray wolf, the environmental baseline for the action area, the consequences of the action, the cumulative effects, and the best available scientific information, it is the Service's biological opinion that the consequences of the Colorado wolf 10(j) rule on the gray wolf is not likely to jeopardize the continued existence of the gray wolf within the 44-state listed entity.

The rationale for our conclusion is as follows:

- We believe that the reintroduction of 30 to 50 gray wolves planned by the state of Colorado is likely to benefit the 44-state listed entity by increasing the number of populations and broadening the distribution of gray wolves since there are currently only 2 gray wolves known to be in the state of Colorado and those individuals do not meet the Service's definition of a population.
- The anticipated level of wolf mortality due to control measures is likely to average between approximately 0 and 5 percent of the number of wolves present in the action area.
- There are more than 4,300 individual wolves within the 44-state listed entity, therefore the minimal level of anticipate control of gray wolves in Colorado represents a very small percentage of gray wolves in the listed entity.
- While we cannot meaningfully predict levels of incidental take of gray wolves within the action area associated with the management take exceptions noted in this opinion, we anticipate that incidental take is likely to be low, likely less than 5 percent of the number of wolves introduced within the NEP.

Incidental Take Statement

Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR § 402.02). The 10(j) rule broadly exempts from the section 9 take prohibitions any take of gray wolves that is incidental to otherwise lawful activities. We provide this exemption because we believe such incidental take associated with otherwise lawful activities is necessary and advisable for the conservation of the species. Experimental population rules contain specific prohibitions and exceptions regarding the taking of individual animals. Once the 10(j) rule becomes effective, incidental take of gray wolves within the NEP area will not be prohibited, provided that the take is in accordance with the 10(j) rule. Because incidental take is already exempted by the 10(j) rule, the incidental take statement in this Biological Opinion does not need to exempt any incidental take. Accordingly, there are no reasonable and prudent measures or terms and conditions that are necessary or appropriate for these actions because all incidental take has already been exempted.

We make specific note here that shooting a gray wolf due to mistaking it for another animal such as coyote (*C. latrans*) is not considered incidental take. People using firearms have the responsibility to make sure of their target. Any wolf killed due to mistaking it for another animal species is a violation of section 9 of the Act and subject to prosecution.

Reinitiation Notice

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; or, (2) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion.

References Cited

Colorado Parks and Wildlife. 2023. Colorado Wolf Restoration and Management Plan. 261 pp.

Mech, David L. 1970. The Wolf: The Ecology and Behavior of an Endangered Species. American Museum of Natural History. 384 pp.

National Research Council 1997. Wolves, Bears, and Their Prey in Alaska: Biological and Social Challenges in Wildlife Management. Washington, DC: The National Academies Press. 224 pp.

U.S. Fish and Wildlife Service. 1994. Final Environmental Impact Statement, Appendix 8. The Reintroduction of Gray Wolves to Yellowstone National Park and Central Idaho. 414 pp.

U.S. Fish and Wildlife Service. 2020. Gray Wolf Biological Report, Information on the species in the lower 48 United States.

Washington Department of Fish and Wildlife. 2023. Wolf Identification. 4 pp.

White, H. B., G. R. Batcheller; E. K. Boggess, C. L. Brown, J. W. Butfiloski, T. A. Decker, J.D. Erb, M. W. Fall, D. A. Hamilton, T. L. Hiller, G. F. Hubert Jr., M. J. Lovallo, J. F. Olson, N. M. Roberts. 2021. Best Management Practices for Trapping Furbearers in the United States. Wildlife Monographs 207: 3-59.

Personal Communications

Becker, Scott, U.S. Fish and Wildlife Service, 2022. Microsoft Excel spreadsheet documenting gray wolf mortality in the northern Rocky Mountain population of gray wolves.

Becker, Scott, U.S. Fish and Wildlife Service, 2023. June 12, 2023, Microsoft Teams chat message summarizing range-wide gray wolf population estimates.