



# Federal Register

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Thursday,  
July 13, 2000

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## Part III

# Department of the Interior

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Fish and Wildlife Service

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50 CFR Part 17

**Endangered and Threatened Wildlife and Plants; Proposal To Reclassify and Remove the Gray Wolf From the List of Endangered and Threatened Wildlife in Portions of the Conterminous United States; Proposal To Establish Three Special Regulations for Threatened Gray Wolves; Proposed Rule**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AF20

**Endangered and Threatened Wildlife and Plants; Proposal To Reclassify and Remove the Gray Wolf From the List of Endangered and Threatened Wildlife in Portions of the Conterminous United States; Proposal To Establish Three Special Regulations for Threatened Gray Wolves****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service or we) proposes to change the classification of the gray wolf (*Canis lupus*) under the Endangered Species Act of 1973, as amended (Act). Increases in gray wolf numbers, expansion of the species' occupied range, and progress toward achieving the reclassification and delisting criteria of several approved gray wolf recovery plans show that the species' current classification is no longer appropriate throughout most of its range. This proposal, if finalized, will establish four distinct population segments (DPSs) for the gray wolf in the United States and Mexico. Gray wolves in the Western Great Lakes DPS, the Western DPS, and the Northeastern DPS will be reclassified from endangered to threatened, except where already classified as an experimental population or as threatened. Gray wolves in the Southwestern (Mexican) DPS will retain their endangered status. All three existing gray wolf experimental population designations will be retained and are not affected by this proposal. Gray wolves will be removed from the protections of the Act in all other areas of the 48 conterminous states. We are proposing a new special regulation under section 4(d) of the Act for the threatened Western DPS to increase our ability to respond to wolf-human conflicts outside the two experimental population areas in the northern United States Rockies. We are proposing a second special regulation under section 4(d) that would apply to the Northeastern DPS to reduce wolf-human conflicts and land-use restrictions. A third section 4(d) special regulation would expand the current Minnesota wolf depredation program into Wisconsin, Michigan, North Dakota, and South Dakota. The classification, under the Act, of captive gray wolves would be

determined by the location from which they, or their ancestors, were removed from the wild. We would revise our existing recovery plans, as appropriate to accommodate changes necessitated by this proposal, if finalized. This proposal does not affect the protection currently afforded by the Act to the red wolf (*C. rufus*), a separate species that is listed as endangered in the southeastern United States.

**DATES:** We must receive comments from interested parties by November 13, 2000 so they can be considered in our final decision. Requests for formal public hearings must be received by August 28, 2000. We will hold informal public informational meetings at numerous locations across the country during the comment period. The locations and dates of the informational meetings will be widely publicized in advance in the press; the locations and dates can also be obtained by using the phone, facsimile, electronic mail, and World Wide Web contact information given below.

**ADDRESSES:** Send all comments and other materials concerning this notice to Content Analysis Enterprise Team, Wolf Comments, 200 East Broadway, PO Box 7669, Room 301, Missoula, Montana 59807. Comments only (no questions or requests for information) may be submitted by electronic mail to GRAYWOLFComments@FWS.GOV or by facsimile to 406-329-3021; the subject line must say wolf comments. Questions or requests for additional information should follow the instructions in the following section.

We will make the comments and materials we receive available for public inspection, by appointment, during normal business hours at Regional Offices and the Washington Office of the U.S. Fish Wildlife Service following the close of the comment period. Use the contact information in the next paragraph to obtain the addresses of those locations.

**FOR FURTHER INFORMATION CONTACT:** Direct all questions or requests for additional information to the Fish and Wildlife Service using the Gray Wolf Phone Line—612-713-7337, facsimile—612-713-5292, the general gray wolf electronic mail address—GRAYWOLFMAIL@FWS.GOV, or write to: GRAY WOLF QUESTIONS, Fish and Wildlife Service, Federal Building, 1 Federal Drive, Ft. Snelling, MN 55111-4056. Additional information is also available on our World Wide Web site at <http://midwest.fws.gov/wolf>.

**SUPPLEMENTARY INFORMATION:****Background***Purpose and Definitions of the Act*

The purpose of the Act is to identify species that meet the Act's definitions of endangered and threatened species, to add those species to the Federal lists of Endangered and Threatened Wildlife and Plants (50 CFR 17.11 and 17.12, respectively), and to implement conservation measures to improve their status to the point at which they no longer need the protections of the Act. When protection is no longer needed, we take steps to remove (delist) the species from the Federal lists. If a species is listed as endangered, we may reclassify it to threatened status as an intermediate step before eventual delisting; however, reclassification to threatened status is not required in order to delist.

Section 3 of the Act provides the following definitions that are relevant to this proposal:

*Endangered species*—any species which is in danger of extinction throughout all or a significant portion of its range;

*Threatened species*—any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range; and

*Species*—includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. (See additional discussion in *Distinct Population Segments under Our Vertebrate Population Policy*, below.)

*Organization and Contents of This Proposed Rule*

This proposal begins with a discussion of the biology of the gray wolf, followed by a description of related issues that we considered during the development of this proposal. These issues include gray wolf taxonomy, experimental population designations, our Vertebrate Population Policy, and wolf-dog hybrids. We describe previous Federal actions taken for the gray wolf, including the development of recovery plans, and recovery progress in various parts of the country.

A detailed discussion is presented for the five listing factors as required by the Act. These factors are (1) the present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or manmade factors affecting its continued

existence. We analyze these factors for the proposed reclassification of certain populations in response to the current status of the species, which encompasses present and future threats and conservation efforts. We designate Distinct Population Segments (DPSs) and we also discuss wolves in captivity and their role in wolf recovery.

We identify alternative actions that we considered but did not propose and explain the reasons for selecting the proposed actions. Separate sections will explain the three special regulations that are proposed and how these special regulations will promote the conservation of the gray wolf in different parts of the country. We also explain the conservation measures that would be provided to the species if this proposal is finalized.

We request comments and additional information on these proposed changes. The text of the regulatory changes that we are proposing for the gray wolf are found at the end of this rule.

#### *Biology and Ecology of Gray Wolves*

Gray wolves are the largest wild members of the Canidae, or dog family, with adults ranging from 18 to 80 kilograms (kg) (40 to 175 pounds (lb)) depending upon sex and subspecies (Mech 1974). The average weight of male wolves in Wisconsin is 35 kilograms (77 lb) and ranges from 26 to 46 kg (57 to 102 lb), while females average 28 kg (62 lb) and range from 21 to 34 kg (46 to 75 lb) (Wisconsin Department of Natural Resources (WI DNR) 1999a). In the northern U.S. Rocky Mountains, adult male gray wolves average just over 45 kg (100 lb), while the females weigh slightly less. The fur color is frequently grizzled gray, but it can vary from pure white to coal black. Wolves tend to resemble coyotes (*Canis latrans*) or domestic German shepherd or husky dogs (*C. domesticus*) but can be distinguished from them by their longer legs, larger feet, wider head and snout, and straight tail.

Wolves are predators of large animals. Wild prey species in North America include white-tailed deer (*Odocoileus virginianus*) and mule deer (*O. hemionus*), moose (*Alces alces*), elk (*Cervus canadensis*), woodland caribou (*Rangifer caribou*) and barren ground caribou (*R. arcticus*), bison (*Bison bison*), muskox (*Ovibos moschatus*), bighorn sheep (*Ovis canadensis*) and Dall sheep (*O. dalli*), mountain goat (*Oreamnos americanus*), beaver (*Castor canadensis*), and snowshoe hare (*Lepus americanus*), with small mammals, birds and large invertebrates sometimes being taken (Mech 1974, Stebler 1944, WI DNR 1999a). Domestic animals

verified as being taken by wolves in Minnesota during the last 20 years include horses, cattle, sheep, goats, pigs, geese, ducks, turkeys, chickens, dogs, and cats (Paul 1999). Since 1987, wolves in the northern Rocky Mountains of Montana, Idaho, and Wyoming have killed a horse, cattle, sheep, and dogs.

Wolves are social animals, normally living in packs of 2 to 10 members. Packs are primarily family groups consisting of a breeding pair, their pups from the current year, offspring from the previous year, and occasionally an unrelated wolf. Packs occupy, and defend from other packs and individual wolves, a territory of 50 to 550 square kilometers (sq km) (20 to 214 square miles (sq mi)). In the northern U.S. Rocky Mountains territories tend to be larger, typically from 520 to 1040 sq km (200 to 400 sq mi). Normally, only the top-ranking male and female in each pack breed and produce pups. Litters are born from early April into May; they can range from 1 to 11 pups, but generally contain 4 to 6 pups (Michigan Department of Natural Resources (MI DNR) 1997, U.S. Fish and Wildlife Service 1992a). Yearling wolves frequently disperse from their natal packs, although some remain with their pack. Dispersers may become nomadic and cover large areas as lone animals, or they may locate suitable unoccupied habitat and a member of the opposite sex and begin their own territorial pack. Dispersal movements of over 800 km (500 mi) have been documented (Fritts 1983).

The gray wolf historically occurred across most of North America, Europe, and Asia. In North America, gray wolves formerly occurred from the northern reaches of Alaska, Canada, and Greenland to the central mountains and the high interior plateau of southern Mexico. The only areas of the contiguous United States that apparently lacked gray wolves since the last glacial events are much of California and the Gulf and Atlantic coastal plain south of Virginia. In addition, wolves were generally absent from the extremely arid deserts and the mountaintops of the western United States (Goldman 1944, Hall 1959, Mech 1974).

The influx of European settlers and their cultures into North America brought superstitions and fears of wolves. Their attitudes, coupled with perceived and real conflicts between wolves and human activities along the frontier, led to widespread persecution of wolves. Poisons, trapping, and shooting—spurred by Federal, State, and local government bounties—resulted in extirpation of this once

widespread species from more than 95 percent of its range in the 48 conterminous States. At the time of the passage of the Act, likely only several hundred wolves occurred in northeastern Minnesota and on Isle Royale, Michigan, and possibly a few scattered wolves in the Upper Peninsula of Michigan, Montana, and the American Southwest.

Researchers have learned a great deal about gray wolf biology, especially regarding the species' adaptability and its use of non-wilderness habitats. Public appreciation of the role of predators in our ecosystems has increased, and the recovery of the species is now generally supported by the public. Most importantly, within the last decade the prospects for gray wolf recovery in several areas of their former historical United States range have greatly increased. In the western Great Lakes area, wolves have dramatically increased their numbers and occupied range. In addition, gray wolf reintroduction programs in the northern U.S. Rocky Mountains have shown great success.

The gray wolf (*Canis lupus*) is one of two North American wolf species currently protected by the Act. The other is the red wolf (*C. rufus*), a separate species that is listed as endangered throughout its range in the southeastern United States and extending west into central Texas. The red wolf is the subject of a separate recovery program. This proposal does not pertain to the current or future listing status or protection of the red wolf.

#### **Summary of Related Issues Considered**

##### *Taxonomy of Gray Wolves in the Eastern United States*

Both the 1978 and 1992 versions of the Recovery Plan for the Eastern Timber Wolf were developed to recover the gray wolf subspecies *Canis lupus lycaon*, commonly known as the eastern timber wolf, that was believed to be the gray wolf subspecies historically occurring throughout the northeastern quarter of the United States east of the Great Plains (Goldman 1944, Hall and Kelson 1959, Mech 1974). Since the publication of those recovery plans, various studies have been conducted on the subspecific taxonomy of the gray wolf with conflicting results (Nowak 1995, Wayne *et al.* 1995).

We recognize that gray wolf taxonomy at the subspecies level is subject to conflicting opinions and continuing modification. For this reason, we will not base our gray wolf recovery efforts on any particular portrayal of gray wolf

subspeciation. Instead, we have identified geographic areas where wolf recovery is occurring or is feasible, and we will focus recovery efforts on those geographic entities, regardless of the subspecific affiliation of current or historical gray wolves in those areas. We recognize the benefits to the species of focusing recovery efforts across a large expanse of the species' range in order to recover and retain as much of the remaining genetic variation as is feasible. This approach will promote the recovery of the gray wolf throughout representative areas of their historical range in the conterminous 48 States.

*Distinct Population Segments Under Our Vertebrate Population Policy*

The Act's definition of the term "species" includes "any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." On February 7, 1996, we, in conjunction with the National Marine Fisheries Service, adopted a policy governing the recognition of distinct population segments (DPSs) for purposes of listing, reclassifying, and delisting vertebrate species under the Act (61 FR 4722). This policy, sometimes referred to as the "Vertebrate Population Policy" guides the Services in recognizing DPSs that satisfy the definition of species under the Act. To be recognized as a DPS, a group of vertebrate animals must satisfy tests of discreteness and significance, as well as qualify for the status (that is, threatened or endangered) assigned to it.

To be considered discrete, a group of vertebrate animals must be delimited by physical, physiological, ecological, or behavioral barriers or by an international governmental boundary that coincides with differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms. A population does not have to be completely isolated from other populations of the parent taxon in order to be considered discrete.

The significance of a potential DPS is assessed in light of its importance to the taxon to which it belongs. Evidence of significance includes, but is not limited to, the use of an unusual or unique ecological setting; a marked difference in genetic characteristics; or the occupancy of an area that, if devoid of the species, would result in a significant gap in the range of the taxon.

If a group of vertebrate animals is determined to be both discrete and significant, its status can then be judged as would that of any species; that is, if it satisfies the Act's definition of "endangered" or "threatened", it can be accorded the appropriate protective

legal status under the Act as a DPS. Although the policy does not allow State or other intra-national governmental boundaries to be used in determining the discreteness of a potential DPS, a State boundary may be used as a boundary of convenience when it incidentally separates two DPSs that are judged to be discrete on other grounds.

Refer to **Designation of Distinct Population Segments**, below, for further discussion and analysis of how our Vertebrate Population Policy applies in this proposed rule.

*Currently Designated Nonessential Experimental Populations of Gray Wolves*

Section 10(j) of the Act gives the Secretary of the Interior the authority to designate populations of listed species that are reintroduced outside their current range, but within their probable historical range, as "experimental populations" for the purposes of promoting the recovery of those species by establishing additional wild populations. Such a designation increases our flexibility in managing reintroduced populations, because experimental populations are treated as threatened species under the Act. Threatened status, in comparison to endangered status, allows somewhat more liberal issuance of take permits for conservation and educational purposes, imposes fewer permit requirements on recovery activities by cooperating States, and allows the promulgation of special regulations to further promote the conservation of the species.

Furthermore, the Secretary is authorized to designate experimental populations as "nonessential" if they are determined to be not essential to the continued existence of the species. For the purposes of section 7(a)(2) of the Act (Interagency Cooperation), nonessential experimental populations, except where they occur within areas of the National Wildlife Refuge System or the National Park System, are treated as species proposed to be listed as threatened or endangered species, rather than as listed species. Proposed species lack the protection of the Act, although we encourage the inclusion of protective measures when Federal agencies conference with us pursuant to section 7(a)(4) of the Act or consult with us pursuant to section 7(a)(2), or private individuals apply for a 10(a)(1)(B) permit.

The Secretary has designated three nonessential experimental population areas for the gray wolf, and wolves have subsequently been reintroduced into these areas, establishing three

nonessential experimental populations. These nonessential experimental population areas are the Yellowstone Experimental Population Area, the Central Idaho Experimental Population Area, and the Mexican Wolf Experimental Population Area.

The Yellowstone Experimental Population Area consists of that portion of Idaho east of Interstate Highway 15; that portion of Montana that is east of Interstate Highway 15 and south of the Missouri River from Great Falls, Montana, to the eastern Montana border; and all of Wyoming (59 FR 60252; November 22, 1994).

The Central Idaho Experimental Population Area consists of that portion of Idaho that is south of Interstate Highway 90 and west of Interstate 15; and that portion of Montana south of Interstate 90, west of Interstate 15, and south of Highway 12 west of Missoula (59 FR 60266; November 22, 1994).

The special regulations for these two experimental populations allow flexible management of wolves, including authorization for private citizens to take wolves in the act of attacking livestock on private land. These rules also provide a permit process that similarly allows the taking, under certain circumstances, of wolves in the act of attacking livestock grazing on public land. In addition, they allow opportunistic noninjurious harassment of wolves by livestock raisers on private and public grazing lands, and designated government employees may perform lethal and non-lethal control efforts to remove problem wolves under specified circumstances.

A December 12, 1997, ruling by the United States District Court for Wyoming declared these nonessential experimental population rules to be in violation of the Act because they reduce the protection for any naturally occurring (that is, non-reintroduced) wolves that may disperse into those areas from northwestern Montana or Canada. The District Court declared the nonessential experimental designation to be unlawful and ordered that the reintroduced wolves be removed. However, the Court stayed the order pending an appeal. The United States appealed the District Court's ruling, and on January 13, 2000, the Tenth Circuit Court of Appeals upheld the wolf reintroduction rule. Consequently, wolves in central Idaho and the Greater Yellowstone area are protected and managed as nonessential experimental populations.

On January 12, 1998, we established a similar third nonessential experimental population area to reintroduce the Mexican gray wolf into

its historical habitat in the southwestern States. The Mexican Gray Wolf Nonessential Experimental Population Area consists of that portion of Arizona lying south of Interstate Highway 40 and north of Interstate Highway 10; that portion of New Mexico lying south of Interstate Highway 40 and north of Interstate Highway 10 in the west and north of the Texas-New Mexico border in the east; and that part of Texas lying north of U.S. Highway 62/180 (63 FR 1752).

This proposed rule will not affect any of the existing three nonessential experimental populations for gray wolves in Wyoming and portions of Idaho, Montana, Arizona, New Mexico, and Texas, nor will it affect the existing special regulations that apply to those three nonessential experimental populations.

#### *Distinct Population Segments and Experimental Populations*

The Act does not provide a definition for the term "population." However, the Act uses the term "population" in two different concepts—distinct population segments and experimental populations. These two concepts were added to the original Act at different times and are used in different contexts. The term "distinct population segment" is part of the statutory definition of a "species" and is significant for listing, delisting, and reclassification purposes, under section 4 of the Act. Our Vertebrate Population Policy (61 FR 4722; February 7, 1996) defines a DPS as one or more groups of members of a species or subspecies within a portion of that species' or subspecies' geographic distribution that meets established criteria regarding discreteness, significance, and conservation status. Congress included the DPS concept in the Act, recognizing that a listing, reclassification, or delisting action may, in some circumstances, be more appropriately applied over something less than the entire area in which a species or subspecies is found in order to protect and recover organisms in a more timely and cost-effective manner.

In contrast, Congress added the experimental population concept to give the Secretary another tool to aid in the conservation of species, subspecies, or DPSs that have already been listed under the Act. The Act authorizes the Secretary to establish an experimental population if he determines that a release under such a designation will further the conservation of a listed species. Under the Act's definition of "species," an experimental population can be introduced to aid in the recovery of whatever biological unit is the subject

of the listing, that is, a species, subspecies, or DPS. The term "population" as used in the experimental population program is necessarily a flexible concept, depending upon the organism involved and its biological requirements for successfully breeding, reproducing, and establishing itself in the reintroduction area.

For purposes of gray wolf reintroduction by means of experimental populations in central Idaho and Yellowstone National Park, we needed to examine the biological characteristics of the species to determine if the reintroduced wolves would be geographically separate from other gray wolf populations. We defined a wolf population to be two breeding pairs, each successfully raising two or more young for two consecutive years in a recovery area (U.S. Fish and Wildlife Service 1994a). This wolf population definition was used to evaluate all wolves in the northern U.S. Rocky Mountains to determine if, and where, gray wolf populations might exist. Gray wolves in northwestern Montana qualified as a wolf population under this definition; that existing wolf population was further examined to determine if it was geographically separated from the potential experimental population areas. We determined that the northwestern Montana wolf population was geographically separate, so we designated the two experimental population areas and began gray wolf reintroductions to establish the two experimental populations.

Refer to Designation of Distinct Population Segments, below, for further discussion and analysis of how our Vertebrate Population Policy has been applied in this proposed rule.

#### *Gray Wolf-Dog Hybrids*

The many gray wolf-dog hybrids in North America have no value to gray wolf recovery programs, and are not provided the protections of the Act. Wolf-dog hybrids, when they escape from captivity or are intentionally released into the wild, can interfere with gray wolf recovery programs in several ways. They are familiar with humans, so they commonly are attracted to the vicinity of farms and residences, leading to unwarranted fears that they are wild wolves hunting in pastures and yards. They generally have poor hunting skills; thus, they may resort to preying on domestic animals, while the blame for their depredations is commonly and mistakenly placed on wild wolves. These behaviors are reported in the media and can erode public support for

wolf recovery efforts. In addition, feral wolf-dog hybrids may mate with dispersing wild wolves, resulting in the introduction of dog genes into wild wolf populations. For these reasons, this proposed regulation would not extend the protections of the Act to gray wolf-dog hybrids, regardless of the geographic location of the capture of their pure wolf ancestors.

In other threatened or endangered species recovery programs, hybrids and hybridization could perhaps play an important role. Our decision to not extend the protections of the Act to gray wolf-dog hybrids should not be taken as an indication of our position on the potential importance of hybrids and hybridization to recovery programs for other species. Determining the importance and treatment under the Act of hybrids requires a species-by-species evaluation.

#### **Previous Federal Action**

The eastern timber wolf (*Canus lupus lycaon*) was listed as endangered in Minnesota and Michigan, and the northern Rocky Mountain wolf (*C. l. irremotus*) was listed as endangered in Montana and Wyoming in the first list of species that were protected under the 1973 Act, published in May 1974 (USDI 1974). A third gray wolf subspecies, the Mexican wolf (*C. l. baileyi*), was listed as endangered on April 28, 1976, (41 FR 17740) with its known range given as "Mexico, USA (Arizona, New Mexico, Texas)." On June 14, 1976, (41 FR 24064) the subspecies *C. l. monstrabilis* was listed as endangered (under the misleading common name "Gray wolf"), and its range was described as "Texas, New Mexico, Mexico."

To eliminate problems with listing separate subspecies of the gray wolf and identifying relatively narrow geographic areas in which those subspecies are protected, on March 9, 1978, we published a rulemaking (43 FR 9607) relisting the gray wolf at the species level (*Canus lupus*) as endangered throughout the conterminous 48 States and Mexico, except for Minnesota, where the gray wolf was reclassified to threatened (refer to Map 1 located at the end of the Alternative Selected for Proposal section). In addition, critical habitat was designated in that rulemaking. In 50 CFR 17.95(a), we designated Isle Royale National Park, Michigan, and Minnesota wolf management zones 1, 2, and 3 (delineated in 50 CFR 17.40(d)(1)) as critical habitat. We also promulgated special regulations under section 4(d) of the Act for operating a wolf management program in Minnesota at that time. The depredation control

portion of the special regulation was later modified (50 FR 50793; December 12, 1985).

On November 22, 1994, we designated areas in Idaho, Montana, and Wyoming as nonessential experimental populations in order to initiate gray wolf reintroduction projects in central Idaho and the Greater Yellowstone Area (59 FR 60252, 59 FR 60266). On January 12, 1998, a nonessential experimental population was established for the Mexican gray wolf in portions of Arizona, New Mexico, and Texas (63 FR 1752). These experimental population designations also contain special regulations that govern take of wolves within these geographic areas (codified at 50 CFR 17.84(i) and (k)). (Refer to *Currently Designated Nonessential Experimental Populations of Gray Wolves*, above, for more details.) We have received several petitions during the past decade requesting consideration to delist the gray wolf in all or part of the 48 conterminous States. We subsequently published findings that these petitions did not present substantial information that delisting gray wolves in all or part of the conterminous 48 States may be warranted (54 FR 16380, April 24, 1989; 55 CFR 48656, November 30, 1990; 63 FR 55839, October 19, 1998).

#### Gray Wolf Recovery Plans

Section 4(f) of the Act directs us to develop and implement recovery plans for listed species. In some cases, we appoint recovery teams of experts to assist in the writing of recovery plans and oversight of subsequent recovery efforts.

We initiated recovery programs for the originally listed subspecies of gray wolves by appointing recovery teams and developing and implementing recovery plans. Recovery plans describe criteria that are used to assess a species' progress toward recovery, contain specific prioritized actions believed necessary to achieve the recovery criteria and objectives, and identify the most appropriate parties to implement the recovery actions.

Recovery plans may contain two separate sets of criteria that are intended to trigger our consideration of the need to either reclassify (from endangered to threatened) or to delist a species due to improvements in its status. Criteria are based upon factors that can be measured or otherwise evaluated to document improvements in a species' biological status. Examples of the type of criteria typically used are numbers of individuals, numbers and distribution of subgroups or populations of the species, rates of productivity of

individuals and/or populations, protection of habitat, and reduction or elimination of threats to the species and its habitat.

The first gray wolf recovery plan was written for the eastern timber wolf, and it was approved on May 2, 1978 (U.S. Fish and Wildlife Service 1978). This recovery plan was later revised and was approved on January 31, 1992 (U.S. Fish and Wildlife Service 1992a). The 1978 Recovery Plan for the Eastern Timber Wolf (Eastern Plan) and its revision were intended to recover the eastern timber wolf, *Canus lupus lycaon*, believed at that time to be the only gray wolf subspecies that historically inhabited the United States east of the Great Plains. Thus, the Eastern Plan covers a geographic triangle extending from Minnesota to Maine and into northeastern Florida. The recovery plan for the eastern timber wolf is based on the best available information on taxonomy at the time of publication. Since the publication of those recovery plans, various studies have produced conflicting results (See *Taxonomy of Gray Wolves in the Eastern United States*).

The Northern Rocky Mountain Wolf Recovery Plan (Rocky Mountain Plan) was approved in 1980 and revised in 1987 (U.S. Fish and Wildlife Service 1980, 1987). The Rocky Mountain Plan states in its introduction that it should be understood to refer to "gray wolves in the northern Rocky Mountains of the contiguous 48 States, rather than to a specific subspecies." The Rocky Mountain Plan covers Idaho, most of Montana and Wyoming, and approximately the eastern one-third of the States of Washington and Oregon.

The Mexican Wolf Recovery Plan was approved in 1982 (U.S. Fish and Wildlife Service 1982). Based on a review of Southwestern (Mexican) subspecies of the gray wolf by Bogan and Mehlhop (1983), the plan combines the historical ranges of *Canus lupus baileyi*, *C. l. monstabilis*, and the presumed extinct *C. l. mogollonensis* (which historically occurred in parts of New Mexico and Arizona) to define the portions of Arizona, New Mexico, Texas, and Mexico where recovery of the Mexican wolf would be appropriate.

#### Recovery Progress of the Eastern Gray Wolf

The 1992 revised Eastern Plan has two delisting criteria. The first criterion requires that the survival of the wolf in Minnesota must be assured. We believe that this first delisting criterion identifies a need for reasonable assurances that future State and Tribal wolf management practices and

protection will maintain a viable recovered population of gray wolves within the borders of Minnesota for the foreseeable future. While there is no specific numerical recovery criterion for the Minnesota wolf population, the Eastern Plan identified State subgoals for use by land managers and planners. The Eastern Plan's subgoal for Minnesota is 1251 to 1400 wolves.

The second delisting criterion in the Eastern Plan requires that at least one viable wolf population be reestablished within the historical range of the eastern timber wolf outside of Minnesota and Isle Royale. The Eastern Plan provides two options for reestablishing this second viable wolf population. If it is located more than 100 miles from the Minnesota wolf population, it would be considered "isolated," and the frequency of movement of individuals and genetic material from one population to the other would likely be very low. Such an isolated population, in order to be self-sustaining, would have to consist of at least 200 wolves for at least 5 years (based upon late winter counts) to be considered viable. Alternatively, if the second population is located within 100 miles of a self-sustaining wolf population (for example, the Minnesota wolf population), a reestablished population having a minimum of 100 wolves for at least 5 years would be considered viable. Such a smaller population would be considered to be viable, because its proximity would allow frequent immigration of Minnesota wolves to supplement it numerically and genetically.

The Eastern Plan does not specify where in the eastern United States the second population should be reestablished. Therefore, the second population could be located anywhere within the triangular Minnesota-Maine-Florida land area covered by the Eastern plan, except on Isle Royale and within Minnesota.

The 1992 Eastern Plan recommends reclassifying in Wisconsin and Michigan separately, recognizing that progress towards recovery may occur at differing rates. The Plan specifies that wolves in Wisconsin could be reclassified to threatened if the population within the State remained at or above 80 (late winter counts) for 3 consecutive years. The Plan does not contain a reclassification criterion for Michigan wolves. Instead, it states that if Wisconsin wolves reached their reclassification criterion, consideration should also be given to reclassifying Michigan wolves. However, with the subsequent increase in Michigan wolf numbers, it has frequently, but

unofficially, been assumed that the "80 wolves for 3 years" criterion would be applied to Michigan. In other words, each State could be considered for reclassification if either the Wisconsin or Michigan wolf population reached 80 individuals or more for 3 successive years. The Eastern Timber Wolf Recovery Team used these criteria in its recent recommendation that the gray wolf in the western Great Lakes States be reclassified to threatened as soon as possible (Rolf Peterson, Eastern Timber Wolf Recovery Team, *in litt.* 1997, 1998, 1999a, 1999b).

The Eastern Timber Wolf Recovery Team recently clarified the delisting criterion, which treats wolves in Wisconsin-Michigan as a single population. The Recovery Team clarified that the numerical delisting criterion for the Wisconsin-Michigan population will be achieved when 6 successive late winter wolf surveys document that the population equaled or exceeded 100 wolves for 5 consecutive years (Rolf Peterson, *in litt.* 1998). Because the Wisconsin-Michigan wolf population was first known to have exceeded 100 wolves in the late winter 1993-94 survey, the numerical delisting criterion was satisfied in early 1999, based upon late winter 1998-99 data (Wydeven *et al.* 1999).

The Eastern Plan has no goals or criteria for the gray wolf population on the 546-sq km (210-sq mi) Isle Royale, Michigan. This small and isolated wolf population is not expected to make a significant contribution to gray wolf recovery, although long-term research on this wolf population has added a great deal to our knowledge of the species.

Over the last 2 years, the Eastern Timber Wolf Recovery Team has consistently recommended that we designate a DPS in the western Great Lakes area and proceed with reclassification of wolves in that DPS to threatened as soon as possible. The Eastern Team recommended that the DPS include a wide buffer around the existing populations of wolves in Minnesota, Wisconsin, and Michigan. Buffers generally are described as lands that may not be regularly occupied by wolves but which may be temporarily used by dispersing wolves. Thus, they suggested the DPS also include the States of North Dakota, South Dakota, Iowa, Illinois, Indiana, and Ohio (Peterson *in litt.* 1997, 1998, 1999a, 1999b).

#### Minnesota

During the pre-1965 period of wolf bounties and legal public trapping, wolves persisted in the more remote

northeastern areas of Minnesota. Estimates of population levels of Minnesota wolves prior to listing under the Act in 1974 include 450 to 700 in 1950-53 (Fuller *et al.* 1992, Stenlund 1955), 350 to 700 in 1963 (Cahalane 1964), 750 in 1970 (Leirfallom 1970), 736 to 950 in 1971-72 (Fuller *et al.* 1992), and 500 to 1,000 in 1973 (Mech and Rausch 1975). While these estimates were based upon varying methodologies and are not directly comparable, they all agree in estimating the wolf population in Minnesota, the only significant population in the Lower 48 States during those time-periods, at 1,000 or fewer animals preceding their listing under the Act.

Various population estimates in Minnesota have indicated a steady increase in numbers after the eastern timber wolf was listed as endangered under the Act. A population of 1,000 to 1,200 was estimated by L. David Mech for 1976 (U.S. Fish and Wildlife Service 1978), and 1,235 wolves in 138 packs were estimated for the winter of 1978-79 (Berg and Kuehn 1982).

In 1988-89 the Minnesota Department of Natural Resources (MN DNR) repeated the 1978-79 survey, and also used a second method to estimate wolf numbers in the State. The resulting independent estimates were 1,500 and 1,750 wolves in at least 233 packs (Fuller *et al.* 1992).

During the winter of 1997-98, a statewide wolf population and distribution survey was repeated by MN DNR, using methods similar to those of the two previous surveys. That survey concluded that approximately 2,445 wolves existed in about 385 packs in Minnesota during that winter period. This figure indicates the continued growth of the Minnesota wolf population at 4 to 5 percent annually. The Minnesota wolf population has shown this annual rate of increase since 1970 (Berg and Benson, *in press*, Fuller *et al.* 1992).

Simultaneous with the increase in wolf numbers in Minnesota has been a parallel expansion of the area in which wolves are routinely found. During 1948-53 the major wolf range was estimated to be about 31,080 sq km (11,954 sq mi) (Stenlund 1955). A 1970 questionnaire survey resulted in an estimated wolf range of 38,400 sq km (14,769 sq mi) (calculated by Fuller *et al.* 1992 from Leirfallom 1970). Fuller *et al.* (1992), using data from Berg and Kuehn (1982), estimated that Minnesota primary wolf range included 36,500 sq km (14,038 sq mi) during winter 1978-79. By 1982-83, pairs or breeding packs of wolves were estimated to occupy an area of 57,050 sq km (22,000 sq mi) in

northern Minnesota (Mech *et al.* 1988). That study also identified an additional 40,500 sq km (15,577 sq mi) of peripheral range, where habitat appeared suitable but no wolves or only lone wolves existed. The 1988-89 study produced an estimate of 60,200 sq km (23,165 sq mi) as the contiguous wolf range at that time in Minnesota (Fuller *et al.* 1992), an increase of 65 percent over the primary range calculated for 1978-79. The 1997-98 study concluded that the contiguous wolf range had expanded to 88,325 sq km (33,971 sq mi), a 47 percent increase in 9 years (Berg and Benson, *in press*). The wolf population in Minnesota has recovered to the point that its contiguous range covered approximately 40 percent of the State during 1997-98.

#### Wisconsin

Wolves were considered to have been extirpated from Wisconsin by 1960. No formal attempts were made to monitor the State's wolf population from 1960 until 1979. From 1960 through 1975 individual wolves and an occasional wolf pair were reported. However, no evidence exists of any wolf reproduction occurring in Wisconsin, and the wolves that were reported may have been dispersing animals from Minnesota.

Wolf population monitoring by the Wisconsin Department of Natural Resources (WI DNR) began in 1979 and estimated a statewide population of 25 wolves at that time. This population remained relatively stable for several years, then declined slightly to approximately 15 to 19 wolves in the mid-1980s.

In the late 1980s, the Wisconsin wolf population began an increase that continues today. WI DNR intensively monitors its wolf population, using a combination of aerial and ground radiotelemetry, snow tracking, and wolf sign surveys (Wydeven *et al.* 1995, 1999). During the winter of 1998-99, 20 wolf packs had members carrying active radio transmitters much of the season. Minimum wolf population estimates (late-winter counts) for 1994 through 1999 are 57, 83, 99, 148, 178, and 197 animals, comprising 14, 18, 28, 32, 47, and 54 packs respectively (WI DNR 1999a; Wydeven *et al.* 1999). Wolves in Wisconsin have surpassed the reclassification criteria identified in the Eastern Plan.

In 1995 wolves were documented in Jackson County, Wisconsin, an area well to the south of the northern Wisconsin area occupied by other Wisconsin wolf packs. During the winter of 1998-99, there were believed to be 24-27 wolves

in 8 packs in the Jackson County area (Wydeven *et al.* 1999).

Based on wolf monitoring activities during the winter of 1997–98, a minimum of 10 wolves were believed on Tribal reservations in Wisconsin. Nine to 11 wolves, not including pups that may have been born in 1998, comprised 3 packs on the Bad River Reservation. By the fall of 1998, one pack no longer occupied the reservation, and the wolf population declined to five animals. One, and possibly as many as three, wolves occur on the Lac du Flambeau Reservation. Wolves will likely reoccupy areas of the Lac Courte Oreilles and Menominee Reservations in the next few years (Adrian Wydeven, WI DNR, *in litt.* 1998).

#### Michigan

Michigan wolves were extirpated as a reproducing population long before they were listed as endangered in 1974. Prior to 1991, and excluding Isle Royale, the last known breeding population of wild Michigan wolves occurred in the mid-1950s. As wolves began to occupy northern Wisconsin, the Michigan Department of Natural Resources (MI DNR) began noting single wolves at various locations in the Upper Peninsula of Michigan. In the late 1980s, a wolf pair was verified in the central Upper Peninsula and produced pups in 1991. Since that time, wolf packs have spread throughout the Upper Peninsula, with immigration occurring from both Wisconsin on the west and Ontario on the east. They now are found in every county of the Upper Peninsula. The MI DNR annually monitors the wolf population and estimates that 57, 80, 116, 112, 140, and 174 wolves occurred in the Upper Peninsula based on late winter counts from 1994 through 1999, respectively (MI DNR 1997, 1999a). The Upper Peninsula Michigan wolf population has exceeded the unofficial criteria for reclassification from endangered to threatened status.

During the winter of 1997–98 one wolf pack composed of four animals lived on lands of the Keewenaw Bay Indian Community. No other wolves are known to be primarily using Tribal lands in Michigan (James Hammill, MI DNR, *in litt.* 1998).

The wolf population of Isle Royale National Park, Michigan, is not considered to be an important factor in the recovery or long-term survival of wolves in the western Great Lakes States. This population is small, varying from 12 to 25 animals over the last 15 years, and is almost completely isolated from other wolf populations (Peterson *et al.* 1998, pers. comm. 1999). For these reasons, the Eastern Plan does not

include these wolves in its recovery criteria and recommends only the continuation of research and complete protection for these wolves (U.S. Fish and Wildlife Service 1992a).

#### Northeastern United States

Wolves were extirpated from the northeastern United States by 1900. Few credible observations of wolves were reported in the Northeast during most of this century. However, in 1993 a single female wolf was killed in western Maine, and in 1996 a second wolf or wolf-like canid was trapped and killed in central Maine. These records and a growing number of observations (and signs) of large, unidentified canids in Maine during recent years led to speculation that wolves may be dispersing into the northeastern United States from nearby occupied habitat in Canada. No actual specimens have been collected to document their presence. Many of the characteristics of the unidentified canids are consistent with an animal intermediate between the eastern coyote and the gray wolf and they may be hybrids of these two species. Private conservation organizations, the Maine Department of Inland Fisheries and Wildlife, the New York Department of Environmental Conservation, and the Service are continuing to seek evidence of the presence of wild wolves in northern New York and New England.

A recent Geographic Information System analysis evaluated the potential for wolf dispersal from southern Quebec and Ontario into the northeastern United States. The study also estimated the amount of suitable wolf habitat present in northern New York and other New England States, and evaluated the likelihood of natural wolf colonization from existing occupied wolf range in Canada. That study found that sufficient suitable wolf habitat is available in the Adirondack Park region of New York and in Maine and northern New Hampshire. However, the New York habitat is relatively isolated, and the authors concluded that natural recolonization is unlikely to occur there. Furthermore, while there are relatively narrow potential dispersal corridors connecting wolf habitat in Maine and New Hampshire with existing wolf populations north of Quebec City, there are significant barriers to dispersal, including the St. Lawrence River, adjacent highways, and dense human developments that may preclude the movement of a sufficient number of wolves from Canada into Maine (Harrison and Chapin 1997).

#### Recovery Progress of the Rocky Mountain Gray Wolf

In 1974, an interagency wolf recovery team was formed and completed the Northern Rocky Mountain Wolf Recovery Plan in 1980 (U.S. Fish and Wildlife Service 1980). The Rocky Mountain Plan focuses wolf recovery efforts on the large contiguous blocks of public land from western Wyoming through Montana to the Canadian border.

The Rocky Mountain Recovery Plan (U.S. Fish and Wildlife Service 1987) identifies a criterion of 10 breeding pairs of wolves for 3 consecutive years in each of the 3 recovery areas—(1) northwestern Montana (Glacier National Park; the Great Bear, Bob Marshall, and Lincoln Scapegoat Wilderness Areas; and adjacent public lands), (2) central Idaho (Selway-Bitterroot, Gospel Hump, Frank Church River of No Return, and Sawtooth Wilderness Areas; and adjacent, mostly Federal, lands), and (3) the Yellowstone National Park area (including the Absaroka-Beartooth, North Absaroka, Washakie, and Teton Wilderness Areas; and adjacent public lands). The Plan states that if one of these recovery areas maintains a population of 10 breeding pairs for 3 successive years, wolves in that recovery area can be reclassified to threatened status. If 2 recovery areas maintain 10 breeding pairs (totaling about 200 adult wolves) for 3 successive years, gray wolves across the coverage area of the Rocky Mountain Plan can be reclassified to threatened status. It also states that if all 3 recovery areas maintain 10 breeding pairs for 3 successive years, the Northern Rocky Mountain wolf population can be considered as fully recovered and can be delisted. The wolf population would be about 300 adult wolves upon attainment of full recovery. The Plan also recommends that wolves be reintroduced into the Yellowstone National Park area as an experimental population. Additionally, if natural recovery has not resulted in at least two packs becoming established in central Idaho within 5 years, the Rocky Mountain Plan states that other measures, including reintroduction, would be considered to recover wolves in that area. The goals identified in the Rocky Mountain Plan are intended to ensure a well distributed and viable population in the Rocky Mountains, goals that could be met in a variety of ways while still adhering to the “biological intent” of the recovery plan.

Gray wolf populations were eliminated from Montana, Idaho, and Wyoming, as well as adjacent

southwestern Canada by the 1930s (Young 1944). After human-caused mortality of wolves in southwestern Canada was regulated in the 1960s, populations expanded southward (Carbyn 1983). Dispersing individuals occasionally reached the northern Rocky Mountains of the United States (Ream and Mattson 1982, Nowak 1983), but lacked legal protection until 1974 when they were listed as endangered.

In 1982 a wolf pack from Canada began to occupy Glacier National Park along the Montana-Canadian border. In 1986 the first litter of pups documented in over 50 years was born in the Park. In recognition of the ongoing natural recovery of wolves arising from these Canadian dispersers, the Rocky Mountain Plan was revised in 1987 (U.S. Fish and Wildlife Service 1987). The revised Rocky Mountain Plan recommends that recovery be focused in areas with large blocks of public land, abundant native ungulates, and minimal livestock. Three recovery areas were identified—northwestern Montana, central Idaho, and the Greater Yellowstone Area. Promotion of natural recovery was advocated for Montana and Idaho (unless no breeding pairs formed in Idaho within 5 years), but recovery in the Yellowstone area was believed to require a reintroduction program.

By 1989, we formed an interagency wolf working group, composed of Federal, State, and Tribal agency personnel. The group conducted four basic recovery tasks, in addition to the standard enforcement functions associated with any take of listed species. These tasks were—(1) monitor wolf distribution and numbers, (2) control wolves that attacked livestock by either moving or killing them, (3) research wolves' relationships to ungulate prey, livestock, and people, and (4) provide accurate information to the public through reports and mass media so that people could develop their opinions about wolves and wolf management from an informed perspective.

In 1995 and 1996, we reintroduced wolves from southwestern Canada to remote public lands in central Idaho and Yellowstone National Park (Bangs and Fritts 1996, Fritts *et al.* 1997). We designated these wolves as nonessential experimental populations to increase management flexibility and address local and State concerns (59 FR 60252 and 60266; November 22, 1994). Wolves in northwestern Montana remain listed as endangered, the most protective category under the Act; they are not included within the nonessential experimental population areas. (Refer to

*Currently Designated Nonessential Experimental Populations of Gray Wolves*, above, for additional details.)

The reintroduction of wolves to Yellowstone National Park and central Idaho in 1995 and 1996 greatly expanded the numbers and distribution of wolves in the northern Rocky Mountains of the United States. Because of the reintroduction, wolves soon became established throughout central Idaho and the Greater Yellowstone Area. In 1995, an estimated 8 packs of about 105 individual wolves produced pups in the northern Rocky Mountains. By 1996, 161 wolves with 15 packs were producing pups. In 1997, 233 wolves with 23 packs were producing pups. In 1998, the wolf population exceeded 300 wolves, with 23 packs producing pups. In 1999, the third successive year that over 20 wolf packs successfully produced pups in the Northern U.S. Rocky Mountains, approximately 400 wolves in about 30 packs occurred in Montana, Idaho, and Wyoming. This achieves the reclassification goal within the Rocky Mountain Plan, which was to have a minimum of 10 breeding packs in at least 2 recovery areas (about 200 adult wolves) for 3 years. While the rate of wolf population expansion may slow, we have every reason to believe wolves will continue to form packs and expand both their distribution and numbers rapidly.

Achieving the Rocky Mountain Plan's delisting goal of 10 breeding packs in each of the 3 recovery areas (about 300 adult wolves) for a minimum of 3 successive years is expected to be achieved by 2002 or 2003. At that point, gray wolves within the geographic area covered by the Rocky Mountain Plan would be proposed to be delisted.

#### *Northwestern Montana*

Reproduction first occurred in northwestern Montana in 1986. The natural ability of wolves to find and quickly recolonize empty habitat and the interagency recovery program combined to effectively promote an increase in wolf numbers. By 1993 the number of wolves had grown approximately 22 percent annually to about 88 wolves in 7 packs (Fritts *et al.* 1995). However, since 1993 the number of breeding groups and number of wolves has stabilized, varying from 6 to 8 packs and from 65 to 90 wolves. The reasons for this are unknown, but are being investigated. The decline in documented wolf numbers may be due to two factors, the first of which produced only the appearance of a decline, while the second represents a real decline (1) monitoring was less intensive during the last several years,

so some packs may have gone undetected during those years; and (2) a dramatic reduction of white-tailed deer numbers throughout northwestern Montana (Caroline Sime, Montana Dep. Fish, Wildlife and Parks, pers. comm. 1998) due to the severe winter of 1996–97, which we believe was responsible for the record high level of livestock depredations and correspondingly high level of wolf control in northwestern Montana during summer 1997. Our 1998 estimate was a minimum of 65 wolves in 6 reproducing packs. In 1999, 7 packs appear to have produced pups, and the northwestern Montana population has increased to about 80 wolves.

Wolf conflicts with livestock have increased with the increasing wolf population and with fluctuations in prey populations. For example, in 1997, following a severe winter that reduced white-tailed deer populations, wolf conflicts with livestock increased dramatically. That year accounted for nearly 50 percent of all the livestock wolf depredations that were confirmed and lethal wolf control actions that were taken in northwestern Montana from 1987 to 1999 (Bangs *et al.* 1998). Wolf numbers should increase as prey numbers rebound; the need for wolf control measures is expected to subside at the same time.

#### *Central Idaho*

In January 1995, 15 young adult wolves captured in Alberta, Canada, were released in central Idaho (Bangs and Fritts 1996, Fritts *et al.* 1997). During January 1996, an additional 20 wolves from British Columbia were released. In 1998 the population consisted of a minimum of 122 wolves, including 10 packs that produced pups (Bangs *et al.* 1998), and in 1999 it has grown to about 170 wolves including 12 reproducing packs.

#### *Yellowstone National Park*

In January 1995, 14 wolves from Alberta, representing three family groups, were placed in 3 pens in Yellowstone National Park (Bangs and Fritts 1996, Fritts *et al.* 1997, Phillips and Smith 1996). The groups were released in late March. Two of the three groups produced young in late April. In January 1996, this procedure was repeated with 17 wolves from British Columbia, representing 4 family groups, being released in early April. Two of those groups produced pups in late April. Furthermore, as the result of a September 1996 wolf control action in northwestern Montana, 10 5-month-old pups were transported to a pen in the Park. These pups and 3 adults from the

Greater Yellowstone Area, which were originally reintroduced from Canada, were released in spring 1997. By autumn of 1998 the Greater Yellowstone Area population consisted of 116 wolves, including 7 packs that produced 10 litters of pups. The 1999 population consists of about 170 wolves comprising 11 reproducing packs.

#### *Dispersal of Western Gray Wolves*

By winter 1998–99, significant numbers of pups (9 in 1995, 25 in 1996, and 99 in 1997) born to reintroduced wolves were becoming sexually mature and were beginning to disperse from their natal packs. Because dispersing wolves may travel extensively and often settle in areas without resident packs, we expect that these wolves will initiate significant expansion in the number and distribution of wolf packs in the northern Rocky Mountains. Dispersal will increase management costs and controversy, because many of these wolves will not be radiocollared and will attempt to colonize areas of private land used for livestock production. Wolves that disperse southward in central Idaho and the Greater Yellowstone Area will increasingly encounter the full range of domestic livestock, including sheep, which are more susceptible to predation and multiple-mortality incidents than are other domestic livestock (Bangs *et al.* 1995, Fritts *et al.* 1992).

We predicted that these three populations eventually would expand and begin to overlap, resulting in one meta-population of gray wolves in the northern U.S. Rocky Mountains. In 1994 we believed that the most likely direction for wolf dispersal and population growth would be from northwestern Montana southward into the experimental areas. Wolves most commonly disperse toward other wolves even when separated by great distances, and we speculated that the presence of reintroduced wolves in the central Idaho and Yellowstone experimental areas would increase the likelihood for wolf dispersal into those areas from northwestern Montana. At that time, we believed that wolves in the northwestern Montana recovery area would be the first to reach 10 breeding pairs. We now believe that the severe winter of 1996–97 temporarily depressed the number of wolves in northwestern Montana and limited the number of dispersal-aged wolves in that area (U.S. Fish and Wildlife Service 1994a, Bangs *et al.* 1998).

In contrast, the wolves reintroduced into central Idaho and Yellowstone have increased their numbers greatly, and nearly two-thirds of those wolves are

young, dispersal-aged animals that may move from those areas over the next 2 years. We believe that wolves that are offspring of the reintroduced animals will increasingly disperse into northwestern Montana and elsewhere. In 1997 a reintroduced male wolf from Idaho dispersed into northwestern Montana and joined a pack there. To date, this is the only wolf known to leave and settle outside an experimental area, but we anticipate many other similar occurrences in the near future.

We also anticipate additional movement of wolves from the northern U.S. Rockies and Canada into western Washington and Oregon and into the Cascade Range. For example, one radiocollared wolf from northwestern Montana was recently found dead from unknown causes in eastern Washington, and a radiocollared young female wolf from central Idaho dispersed into eastern Oregon in early 1999. She was recaptured and returned to the Central Idaho Recovery Area where she would have a better opportunity to find a mate. Furthermore, there are suitable habitat and prey conditions in areas to which wolves may be able to disperse from current populations. Interest in reintroducing gray wolves into Olympic National Park, Washington, prompted the recent completion of a congressionally mandated feasibility study of such a project; additional studies are underway. A similar feasibility study conducted by us concludes that Colorado contains abundant suitable wolf habitat (primarily on public lands administered by the USDA Forest Service) and that a viable wolf population is biologically feasible in the State. While habitat that could support wolves certainly exists in these areas, at this time we have no plans to initiate wolf recovery efforts for any areas in the western United States outside of those identified in Montana, Idaho, and Wyoming.

#### **Recovery Progress of the Southwestern (Mexican) Gray Wolf**

The objectives of the Mexican Wolf Recovery Plan (U.S. Fish and Wildlife Service 1982) are to maintain a captive breeding program and to reestablish a population of at least 100 Mexican wolves within its historical range. The plan contains no numerical criteria for revising the endangered status of the Mexican wolf. We consider the current recovery plan objective for the wild population to be an essential first step toward the eventual recovery of the Mexican wolf. A revised recovery plan for the Mexican wolf will contain numerical criteria for reclassifying to a threatened status and for delisting.

Because recovery of the Mexican wolf is in its very early stages, we are proposing no changes to the legal status of the Mexican gray wolf at this time.

Through managed breeding, the captive population of Southwestern (Mexican) gray wolves had increased to 182 animals prior to the 1999 breeding season. Forty zoos and wildlife sanctuaries throughout the United States and Mexico cooperate in the maintenance and breeding of the captive wolves. An 18,000-sq km (7000-sq mi) area (the Blue Range Wolf Recovery Area) has been designated for the re-establishment of a wild population of at least 100 wolves. This area includes all of the Apache and Gila National Forests in eastern Arizona and western New Mexico.

Re-establishment of a wild population began with the release of 13 captive-reared Mexican gray wolves in eastern Arizona in 1998, and an additional 21 wolves in 1999. Nineteen Mexican wolves were free-ranging in the wild as of January, 2000. Additional releases are planned over the next 2 to 3 years to reach the goal of a wild population of 100 wolves. This reintroduced population of wolves, like those in central Idaho and the Greater Yellowstone Area, has been designated nonessential experimental (63 FR 1752–1772, January 12, 1998) and can be legally killed by ranchers if the wolves are attacking livestock on private land. Other provisions of the special regulation designating the population as nonessential experimental give agency managers flexibility to address wolf-human conflicts. Defenders of Wildlife, a private conservation organization, compensates ranchers whose livestock are killed by these wolves.

#### **Summary of Factors Affecting the Species**

Section 4 of the Endangered Species Act and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act, set forth the procedures for listing, reclassifying, and delisting species. Species may be listed as threatened or endangered if one or more of the five factors described in section 4(a)(1) of the Act threatens the continued existence of the species. A species may be delisted, according to 50 CFR 424.11(d), if the best scientific and commercial data available substantiate that the species is neither endangered nor threatened because (1) of extinction, (2) of recovery, or (3) the original data for classification of the species were in error. This analysis must be based upon the same five categories of threats specified in section 4(a)(1).

In a subsequent section of this proposal we identify four DPSs that we believe deserve separate treatment under the Act (refer to Designation of Distinct Population Segments). These DPSs are the Western Gray Wolf DPS, the Western Great Lakes Gray Wolf DPS, the Northeastern Gray Wolf DPS, and the Southwestern (Mexican) Gray Wolf DPS. Therefore, for consistency and clarity in discussing each threat, the following analysis of the five categories of threats contains separate discussions for wolves within those geographic areas that we believe should be designated as DPSs.

For species that are already listed as threatened or endangered, this analysis of threats is primarily an evaluation of the threats that could potentially affect the species in the future if the delisting or downlisting proposal is finalized and the Act's protections are removed or reduced. Our evaluation of the future threats to the gray wolf in the Western Great Lakes DPS—especially those threats that would occur after removal from the protections of the Act—is partially based upon the wolf management plans and assurances of the States and Tribes in that area. If the gray wolf were to be federally delisted, State and tribal management plans will be the major determinants of wolf habitat and prey availability, will set and enforce limits on human utilization and other forms of taking, and will determine the overall regulatory framework for conservation or exploitation of gray wolves.

If the gray wolf is reclassified to threatened status, many aspects of State and Tribal management plans cannot yet be implemented because of the overriding prohibitions of the Act. However, State and Tribal plans, to the extent that they have been developed, can serve as significant indicators of public attitudes and agency goals which, in turn, are evidence of the probability of continued progress toward full recovery under the Act. Such indicators of attitudes and goals are especially important in assessing the future of a species that was officially persecuted by government agencies as recently as 35 years ago and still is reviled by some members of the public to this day. Therefore, below we provide some details on the components of the wolf management plans that currently exist and analyze their impact on the future of the gray wolf.

After a thorough review of all available information and an evaluation of the following five factors specified in section 4(a)(1) of the Act, we have determined that the Act's protections for the gray wolf should be reduced or eliminated across the conterminous States except for portions of several

southwestern States and Mexico. Significant gray wolf recovery has occurred, and continues, across a significant portion of the species' historical range as a result of the reduction of threats as described below.

#### *A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range*

*General.* Gray wolves have become symbols of wilderness in the minds of many people. Wolves are popularly thought to inhabit only remote portions of pristine forests or mountainous areas, where human developments and other activities have produced negligible change to the natural landscape. Their extirpation outside of areas such as the heavily forested portions of northeastern Minnesota, Alaska, and Canada reinforced this popular belief. However, wolves survived in those areas not because those were the only places with the necessary habitat, but because only in those remote areas were they sufficiently free of the human persecution that elsewhere killed wolves faster than the species could reproduce.

Wolf research, as well as the expansion of the wolf range over the last 2 decades, has shown that wolves can successfully occupy a wide range of habitats, and are not dependent on wilderness areas for their survival. In the past, gray wolf populations occupied nearly every type of habitat north of mid-Mexico that contained large ungulate prey species, including bison, elk, white-tailed deer, mule deer, moose, and caribou. An inadequate prey density and a high level of human persecution apparently are the only factors which limit wolf distribution (Mech 1995).

*Western Great Lakes Gray Wolves.* In the western Great Lakes States, wolves in the densely forested northeastern corner of Minnesota have expanded into the more agricultural portions of central and northwestern Minnesota, northern and central Wisconsin, and most of the Upper Peninsula of Michigan. Habitat currently being used by wolves spans the range from the mixed hardwood-coniferous forest wilderness area of northern Minnesota; through sparsely settled, but similar habitats in Michigan's Upper Peninsula and northern Wisconsin; into more intensively cultivated and livestock-producing portions of central and northwestern Minnesota and central Wisconsin; and even approaching the northern fringes of the St. Paul suburbs. (In April 1993 a radiotracked wolf from Wisconsin spent several weeks near the Washington County, Minnesota town of Hugo, without generating any reported

sightings. Hugo is less than 20 miles from the center of downtown St. Paul.) Wolves are also dispersing from Minnesota into the agricultural landscape of eastern North and South Dakota in increasing numbers (Licht and Fritts 1994).

Based upon computer modeling, Wisconsin and the Upper Peninsula of Michigan contain large tracts of potential wolf habitat, estimated at 15,052 sq km (5812 sq mi) and 29,348 sq km (11,331 sq mi), respectively (Mladenoff *et al.* 1995; WI DNR 1999). In Wisconsin most of this suitable habitat is on public lands, with most of these public lands being National, State, and county forest lands.

Wisconsin DNR biologists conducted a population viability analysis (PVA) for their wolf population using the computer simulation model VORTEX. The purpose of a PVA is to estimate extinction probabilities by modeling long-term species' population changes that result from multiple interacting factors. The resulting extinction probabilities provide insight into the effects that management alternatives, environmental fluctuation, and biological factors will likely have on rare species' populations over many years.

Under most of the scenarios that were modeled by WI DNR the results of the PVA indicated that a wolf population of 300 to 500 animals would have a low probability of extinction over a 100-year timeframe. However, the modeling indicated that the population might decline to a level that State-relisting might be necessary (fewer than 80 wolves for 3 years). "State-relisting probabilities" ranged from 10 to 40 percent for those scenarios which looked at a combination of moderate environmental variability and a 5 percent probability of catastrophic events. Extinction probabilities were only one percent for those same scenarios (WI DNR 1999a).

The Wisconsin wolf population has increased at an average annual rate of over 30 percent over the last 6 years and was at least 197 wolves in early 1999 (Wydeven *et al.* 1999). The Michigan wolf population (excluding Isle Royale) has increased at an average annual rate of about 34 percent over the last 6 years and was at least 174 wolves in early 1999 (MI DNR 1999a). Wolf survey methods in both States focus on wolf packs and may miss some lone individuals.

Final and State wolf management plans for Michigan and Wisconsin, respectively, have identified habitat protection as one of their top priorities

for maintaining a viable wolf population. Both of these State wolf management plans emphasize the need to manage human access to wolf areas by avoiding increasing road densities, protecting habitat corridors between larger tracts of wolf habitat, avoiding disturbance and habitat degradation in the immediate vicinity of den and rendezvous sites, and maintaining adequate prey species for wolves by suitable habitat and prey harvest regulations.

Both the final Michigan Plan and the Wisconsin Plan establish wolf population goals that exceed the viable population threshold identified in the Federal Recovery plan for isolated wolf populations, that is, a population of 200 or more wolves for 5 consecutive years (U.S. Fish and Wildlife Service 1992a). Each State adopted this approach to ensure the continued existence of a viable wolf population within its borders regardless of the condition or existence of wolf populations in adjacent States or Canada. The Michigan Plan contains a long-term minimum goal of 200 wolves (excluding Isle Royale wolves) and identifies 800 wolves as the estimated carrying capacity of suitable areas on the Upper Peninsula (MI DNR 1997).

The final Wisconsin wolf plan identifies a management goal of 350 wolves, well above the 200 wolves specified in the Federal Recovery Plan for a viable isolated wolf population. After the Wisconsin wolf population is at 250 for 3 consecutive years (excluding wolves on Indian Reservations) the species will be removed from the State's threatened and endangered species list (WI DNR 1999a).

Three comparable surveys of wolf numbers and range in Minnesota have been carried out in recent decades. The first survey estimated a State wolf population of 1235 in 1979 (Berg and Kuehn 1982). In 1989, 1500 to 1750 wolves were estimated in the State (Fuller *et al.* 1992). This represents an average annual increase of about three percent. The 1998 survey (Berg and Benson, *in press*) estimated that the State's wolf population was 2445 animals, indicating an average annual growth rate of 4 to 5 percent during the intervening 9 years. While estimates of the wolf population that are made at about 10-year intervals do not provide any insight into annual fluctuations in wolf numbers that might be due to winter conditions, prey availability and vulnerability, legal depredation control, and illegal killing, these three population estimates clearly indicate that the Minnesota wolf population has continued to increase. (Refer to

Recovery Progress of Gray Wolves in the Eastern United States, above, for additional details on the increase in numbers and range of Minnesota wolves.)

The Minnesota DNR prepared its Wolf Management Plan (MN Plan)(MN DNR 1999) and an accompanying legislative bill in early 1999 and submitted them to the Minnesota Legislature. The Legislature must approve the plan and bill to provide implementation of the regulatory authority. However, the Legislature failed to approve the MN Plan in the 1999 session. In early 2000 the MN DNR released a second bill that would result in somewhat different wolf management and protection than would the 1999 bill. As of mid-February the Minnesota Legislature had not yet considered the 2000 Minnesota wolf management bill.

The complete text of the Wisconsin, Michigan, and Minnesota wolf management plans and bills can be found on our Web site. Our summaries of those plans are also available there. See **FOR FURTHER INFORMATION**, above, for the Uniform Resource Locator (URL) of our World Wide Web site.

We expect wolf populations to continue to be conserved on most, and probably all, Indian Reservations in the western Great Lakes area, and those practices will augment wolf population goals listed above for the State DNRs. While we are unable to perform a comprehensive analysis of the likely future management and protection afforded to wolves on Native American reservations, we believe their traditional respect for the wolf, and its importance in Native American culture, will secure the species' future existence on most land under Native American control.

The wolf retains great cultural significance and traditional value to many Tribes and their members (Eli Hunt, Leech Lake Tribal Council, *in litt.* 1998, Mike Schrage, Fond du Lac Resource Management Division, *in litt.* 1998a). Some Native Americans view wolves as competitors for deer and moose, while others are interested in the harvest of the wolf as a furbearer (Schrage, *in litt.* 1998a). Many Tribes intend to manage their natural resources, wolves among them, in a sustainable manner in order that they be available to their descendants. However, traditional natural resource harvest practices often include only a minimum amount of regulation by the Tribal government (Hunt *in litt.* 1998).

In the creation story of the Ojibwa, Ma'ingan, the wolf, is a brother to the Original Man. The two traveled together throughout the world naming everything they encountered. Afterward,

the Creator had them take separate paths, but told them that they would share the same fates, and that both would be feared, respected, and misunderstood by others who arrived later. Thus, the Ojibwa people link their survival to that of Ma'ingan, and will fully support the protection of the wolf to ensure its health and abundance in the future (Schlender, Great Lakes Indian Fish and Wildlife Commission, *in litt.* 1998).

In order to retain and strengthen these cultural connections some Tribes are choosing to reject the unnecessary killing of wolves on reservations and on ceded lands, even if wolves were to be delisted. For example, the Tribal Council of the Leech Lake Band of Minnesota Chippewa recently has adopted a resolution that describes the sport and recreational harvest of gray wolves as an inappropriate use of the animal. The resolution supports the limited harvest of wolves to be used for traditional or spiritual purposes by enrolled Tribal members. This limited harvest would only be allowed by the Tribe if it does not negatively affect the wolf population. We will assist the Council with obtaining wolf pelts and parts that become available from other sources, such as depredation control activities, based on their request. The Leech Lake Reservation is home to an estimated 75 to 100 gray wolves, the largest population of wolves on an Indian reservation in the 48 conterminous States (Hunt *in litt.* 1998).

The Red Lake Band of Chippewa Indians (Minnesota) has indicated that it is likely to develop a wolf management plan that will probably be very similar in scope and content to the plan developed by the MN DNR. The Band's position on wolf management is "wolf preservation through effective management," and the Band is confident that wolves will continue to thrive on their lands (Lawrence Bedeau, Red Lake Band of Chippewa Indians, *in litt.* 1998).

The Keweenaw Bay Indian Community (Michigan) has at least one wolf pack of four animals on its lands. They will continue to list the gray wolf as a protected animal under the Tribal Code even if federally delisted, with hunting and trapping prohibited (Mike Donofrio, Biological Services, Keweenaw Bay Indian Community, pers. comm. 1998). Other Tribes, such as the Fond du Lac Band of Lake Superior Chippewa, have requested a slower pace to any wolf delisting process to allow more time for the preparation of Tribal wolf management plans. The Fond du Lac Band has passed a resolution opposing Federal

delisting and to any other measure that would permit trapping, hunting, or poisoning of the gray wolf (Schrage *in litt.* 1998b).

The Great Lakes Indian Fish and Wildlife Commission has stated its intent to work closely with the States to cooperatively manage wolves in the ceded territories in the Upper Midwest, and will not develop a separate wolf management plan. The Commission intends to work with us to ensure that State plans will adequately protect the wolf (Schlender, *in litt.* 1998).

The lands of national forests, and the prey species found in their various habitats, are important to wolf conservation and recovery in the western Great Lakes States. There are six national forests in that area that have resident wolves. Their wolf populations range from 3 on the Nicolet National Forest in northeastern Wisconsin to an estimated 300–400 on the Superior National Forest in northeastern Minnesota. The land base of the Chequamegon National Forest currently is used by nearly half of the wolves in Wisconsin. All of these national forests are operated in conformance with standards and guidelines in their management plans that follow the recommendations of the 1992 Recovery Plan for the Eastern Timber Wolf (U.S. Fish and Wildlife Service 1992a). Reclassification to threatened status is not expected to change these standards and guidelines; in fact, the gray wolf is expected to remain classified as a sensitive species by the Regional Forester for U.S. Forest Service Region 9 at least for 5 years even if federally delisted (Steve Mighton, U.S. Forest Service, pers. comm. 1998). This continuation of current national forest management practices will be a major factor in ensuring the long-term viability of gray wolf populations in Minnesota, Wisconsin, and Michigan.

Gray wolves regularly use four units of the National Park System in the western Great Lakes States and may occasionally use three or four other units. Although the National Park Service (NPS) has participated in the development of some of the wolf management plans in this area, NPS is not bound by those plans. Instead, the NPS Organic Act and the NPS Management Policy on Wildlife give the agency a separate responsibility to conserve natural and cultural resources and the wildlife present within the Parks. National Park Service management policies require that native species be protected against harvest, removal, destruction, harassment, or harm through human action, so management emphasis will continue to

minimize the human impacts on wolf populations. Thus, because of their responsibility to preserve all wildlife, units of the National Park System can be more protective of wildlife than are State plans and regulations. In the case of the gray wolf, the NPS Organic Act and NPS policies will continue to provide protection to the wolf even after Federal delisting has occurred.

Voyageurs National Park, along Minnesota's northern border, has a land base of nearly 350,000 sq km (134,000 sq mi). Preliminary data from the first 6 months of a 3-year wolf study indicate that 40 to 55 wolves in 7 to 11 packs currently have at least a portion of their territory within the Park. Management and protection of wolves within the Park is not expected to change significantly if they are reclassified to threatened or even if delisted. Voyageurs National Park has identified winter Wildlife Protection Areas; some of these areas are lake embayments which are closed to winter visitation to minimize human disturbance to wildlife, including wolves and bald eagles. Temporary closures around wolf denning and rendezvous sites will be enacted to reduce human disturbance. Sport harvest of wolves within the Park will be prohibited, regardless of what may be allowed beyond Park boundaries in future years. If there is a need to control depredating wolves (unlikely due to the current absence of agricultural activities adjacent to the Park) the Park will work with the State to conduct control activities outside the Park to resolve the problem (Barbara West, Voyageurs National Park, *in litt.* 1999).

The wolf population in Isle Royale National Park is described above (see Recovery Progress of Gray Wolves in the Eastern United States). The NPS has indicated that it will continue to closely monitor and study these wolves, but at this time it does not plan to take any special measures to ensure their continued existence, regardless of their status under the Act. This wolf population is very small and isolated from the remainder of the western Great Lakes population; it is not considered to be significant to the recovery or long-term viability of the gray wolf (U.S. Fish and Wildlife Service 1992a).

Two other units of the National Park System—Pictured Rocks National Lakeshore and St. Croix National Scenic Riverway—are regularly used by wolf packs. Pictured Rocks National Lakeshore is a narrow strip of land along Michigan's Lake Superior Shoreline; it contains wolves during the non-winter months when deer populations are high. The Lakeshore

intends to protect denning and rendezvous sites at least as strictly as the MI DNR Plan recommends (Brian Kenner, Pictured Rocks National Lakeshore, *in litt.* 1998). The St. Croix National Scenic Riverway, in Wisconsin and Minnesota, is also a linear ownership, and it makes up portions of the territories of 3 to 5 packs of 10 to 40 wolves. The Riverway is likely to limit public access to denning and rendezvous sites, and to follow other management and protective practices outlined in the respective State wolf management plans when they are finalized (Robin Maercklein, St. Croix National Scenic Riverway, *in litt.* 1998).

In the western Great Lakes area we currently manage six units within the National Wildlife Refuge System with wolf populations. Primary among these are Agassiz National Wildlife Refuge (NWR) and Tamarac NWR in Minnesota, as well as Seney NWR in the Upper Peninsula of Michigan. Agassiz NWR has had as many as 20 wolves in 2 or 3 packs in recent years, but mange and illegal shootings have reduced them to 5 wolves in a single pack and a separate single wolf in 1999. Tamarac NWR has 2 resident packs in 1999, and both of them produced pups. Possibly 10 to 15 adult wolves use that refuge. Seney NWR currently has 3 packs, with a total of 10 wolves. Rice Lake NWR, in Minnesota, had 1 or 2 packs using the refuge in 1999. Late in the winter of 1998–99 a pair of gray wolves were located on Necedah NWR. Sherburne NWR, also in Minnesota, has 2 to 4 individual wolves, but lacks established wolf packs.

Gray wolves occurring on national wildlife refuges in the western Great Lakes States will be monitored, and refuge habitat management actions will maintain the current prey base for them while they are listed as threatened, and for a minimum of 5 years following any future delisting. Trapping or hunting by government trappers in response to depredation complaints will not be authorized on these refuges.

The extra protection afforded to resident and transient wolves, their den and rendezvous sites, and their prey by 6 national forests, 2 national parks, and numerous national wildlife refuges in the western Great Lakes area will further ensure the continuing recovery of wolves in the three States.

In summary, we believe that, if reclassified to threatened, the gray wolf will not become endangered in the western Great Lakes area in the foreseeable future due to habitat or range destruction or degradation, or related factors that may affect gray wolf numbers. Recovery efforts over the past

decade, the final or draft State and Tribal wolf management plans and practices, as well as those of Federal land management agencies in the western Great Lakes area, will provide adequate protection for wolf populations, maintain their prey base, preserve denning sites and dispersal corridors, and are likely to keep wolf populations well above the numerical recovery criteria established in the Federal recovery plan.

#### *Northeastern Gray Wolves.*

Researchers have recently evaluated the potential for wolf restoration in the Northeastern U.S., and found that both habitat quality and prey densities are favorable for gray wolf recovery (Harrison and Chapman 1997). The moose population in Maine is particularly robust, and within the past few decades moose have expanded their range throughout New Hampshire and into Vermont. Additionally, a small number of moose now occur in northern New York. White-tailed deer and beaver populations are generally considered healthy throughout the region.

Therefore, we believe that habitat and prey base conditions are favorable for wolf restoration in the Northeastern U.S.

*Western Gray Wolves.* The Recovery Plan recommended that wolf recovery efforts in the northern U.S. Rocky Mountains be focused on areas that contained large blocks of public land, abundant wild ungulates, and minimal livestock to reduce potential conflicts between people and wolves. Three primary recovery areas were identified: northwestern Montana, central Idaho, and the Greater Yellowstone Area (U.S. Fish and Wildlife Service 1987). Northwestern Montana (more than 50,000 sq km (19,200 sq mi)); the area North of Interstate 90 and West of Interstate 15) is a mixture of public land, primarily administered by the USDA Forest Service, and private land. The economy and local culture is diverse and not as agriculturally based as other parts of Montana (Bangs *et al.* 1995). The Greater Yellowstone Area and central Idaho areas, 64,000 sq km (24,600 sq mi) and 53,900 sq km (20,700 sq mi) respectively, are primarily composed of public lands (U.S. Fish and Wildlife Service 1994a). These areas of potential wolf habitat are secure and there are no foreseeable habitat-related threats that would prevent them from supporting a wolf population that exceeds recovery levels.

Wild ungulate populations in these three areas are composed mainly of elk, white-tailed deer, mule deer, moose, and (only in the Greater Yellowstone Area) bison. The States of Montana, Idaho, and Wyoming have managed resident ungulate populations for

decades and maintain them at densities that would support a recovered wolf population. There is no foreseeable condition that would cause a decline in ungulate populations significant enough to affect a recovered wolf population. While 100,000 to 250,000 wild ungulates are estimated in each State, domestic ungulates, primarily cattle and sheep, are typically at least twice as numerous even on public lands (U.S. Fish and Wildlife Service 1994a). The only areas large enough to support wolf packs, but lacking livestock grazing, are Yellowstone National Park and some adjacent USDA Forest Service Wilderness and parts of wilderness areas in central Idaho and northwestern Montana. Consequently, many wolf pack territories have included areas used by livestock, primarily cattle. While there is no livestock grazing in Glacier National Park, every wolf pack in northwestern Montana has interacted with some livestock, primarily cattle. To date, conflict between wolves and livestock has resulted in the annual removal of less than six percent of the wolf population (Bangs *et al.* 1995). This level of removal by itself is not generally believed to cause declines in wolf populations.

In summary, we do not believe that habitat loss or deterioration, or a decline in the abundance of wild prey, will occur at levels that will affect wolf recovery and long-term population viability in the Western DPS.

*Southwestern (Mexican) Gray Wolves.* Sufficient suitable habitat exists in the Southwestern United States to support current recovery plan objectives for the Southwestern (Mexican) gray wolf. These habitats occur primarily on national forests and Native American reservations. Current and reasonably foreseeable management practices on these areas are expected to support ungulate populations at levels that will sustain wolf populations which meet or exceed recovery plan objectives. Habitat destruction or modification is not currently considered a threat or deterrent for restoration of Southwestern (Mexican) gray wolves.

#### *B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes.*

*General.* Since their listing under the Act, there have been no gray wolves legally killed or removed from the wild for either commercial or recreational purposes. We acknowledge that there may have been wolves illegally killed for commercial use of the pelts and other parts, but illegal commercial trafficking in wolf pelts or wolf parts is believed to be rare. Illegal capture of wolves for commercial breeding

purposes is also possible, but is also believed to be rare. The large fines and prison sentences provided for by the Act for criminal violations are believed to substantially discourage and minimize the illegal killing of wolves for commercial or recreational purposes.

The intentional or incidental killing, or capture and permanent confinement of endangered or threatened gray wolves for scientific purposes can only legally occur under permits issued by us (under section 10(a)(1)(A) and 10(a)(1)(B) of the Act; under an incidental take statement issued by us as part of a biological opinion evaluating the effects of an action by a Federal agency; under an incidental take statement issued by us pursuant to section 10(a)(1)(B), or by a State agency operating under a cooperative agreement with us pursuant to section 6 of the Act (50 CFR 17.21(c)(5) and 17.31(b)). Although exact figures are not available, such removals of wolves from the wild have been very limited and probably comprised an average of fewer than two animals per year since the species was first listed as endangered. These animals were either taken from the Minnesota wolf population during long-term research activities (about 15 gray wolves), were accidental takings as a result of research activities in Wisconsin (4 mortalities and 1 long-term confinement), were removed from the endangered population in Mexico (5 wolves) to be used as breeding stock for reintroduction programs in the United States, or they were previously released *Canis lupus baileyi* that were recaptured for probable permanent confinement after being judged unsuitable for the reintroduction program (2 or 3 wolves) (William Berg, MN DNR, *in litt.* 1998; Mech, *in litt.* 1998; David Parsons, U.S. Fish and Wildlife Service *in litt.* 1998; Wydeven 1998).

We believe that there have been no wolves legally removed from the wild for educational purposes in recent years. Wolves that are used for such purposes are the captive-reared offspring of wolves that were already in captivity for other reasons.

Refer to *Depredation Control Programs in the Western Great Lakes States and Depredation Control Programs in the Western DPS* under *E. Other Natural or Manmade Factors Affecting its Continued Existence*, below, for discussions of additional wolf mortalities associated with wolf depredation control programs.

*Western Great Lakes Gray Wolves.* If reclassified to threatened status, the taking of gray wolves for commercial, recreational, scientific, or educational

purposes would still be generally prohibited under the Act, but could be authorized by Federal permit. In addition, the taking of wolves for conservation purposes could be done without an authorizing permit, if that taking is done by an employee or agent of a State conservation agency having an approved conservation agreement under the provisions of section 6(c) of the Act. The wildlife management agencies of the States of Minnesota, Wisconsin, Michigan, North Dakota, and South Dakota each have such an approved conservation agreement, and therefore, would be able to take gray wolves for conservation purposes if they are reclassified to threatened status. The amount of such take must be reported to us annually.

A reclassification to threatened status for the Western Great Lakes DPS would not result in any decrease in protection for gray wolves in Minnesota, because they already are classified as threatened there. Therefore, we do not expect any increase in the taking of Minnesota wolves for these purposes. The extremely small current level of such take has not affected the recovery of Minnesota wolves, and is not expected to do so in the future.

Gray wolves in Wisconsin, Michigan, North Dakota, and South Dakota will be subject to a possible increase in take by employees or agents of these States. However, this take must be for conservation purposes, and is thus likely to be for research purposes. Therefore, we believe such take will be minimal and will not significantly slow wolf recovery in Wisconsin and Michigan. (Refer to *Depredation Control Programs in the Western Great Lakes States* under *E. Other Natural or Manmade Factors Affecting its Continued Existence*, below, for a discussion of the increased take expected in these four States for depredation control under the proposed section 4(d) special regulation.)

The taking of wolves by Tribes, Federal agencies, organizations, or private citizens for commercial, recreational, scientific, or educational purposes may increase slightly, because the Act allows us to issue take permits for zoological exhibition, educational purposes, and "special purposes consistent with the Act" for threatened but not for endangered wildlife. Again, the requirement that such take must promote the conservation of the threatened species means that the magnitude of the take will be small and cannot inhibit continued gray wolf recovery.

*Western Gray Wolves.* Since being listed as endangered and experimental, there has been no legal commercial, recreational, or educational utilization

or take of western gray wolves. In the States where wolves are proposed for reclassification to threatened status and will be covered by the proposed 4(d) special regulation, there still would not be any legal take for these purposes under the threatened classification or under the proposed special regulation.

We believe some wolf mortalities associated with the ongoing scientific studies of wolves will occur. Some of these studies involve capturing and radiocollaring of wolves. Wolf capture by trapping, helicopter netgunning, and darting has the potential to seriously injure or kill wolves. These unintentional mortalities are rare and generally average less than 2 percent of the wolves handled (U.S. Fish and Wildlife Service 1994a). During the reintroduction of wolves from Canada nearly 100 wolves were handled and 2 died. Since then there has been only 1 wolf mortality out of about 130 wolves captured as part of routine trapping and radiocollaring for monitoring purposes in Montana, Idaho, and Wyoming.

*Northeastern and Southwestern (Mexican) Gray Wolves.* In these DPSs, gray wolves would continue to be protected by section 9 of the Act under their threatened, endangered, or nonessential experimental population classifications. These classifications would prohibit any commercial or recreational take of gray wolves. Neither the current special regulations for the nonessential experimental population in the Southwestern (Mexican) DPS, nor the proposed special regulation for the Northeastern DPS, would allow these forms of take. Enforcement by us will continue to keep such take to minimal levels.

Take for scientific or recovery purposes, including educational purposes, will be available for both DPSs. For the Southwestern (Mexican) DPS such take can be authorized only by a permit from us. Under the proposed special regulation for the Northeastern DPS take of wolves for scientific, educational, and conservation purposes can be carried out by States under existing cooperative agreements with us under section 6 of the Act. This take authority would be extended to Tribes after they have developed a wolf conservation plan and it has been approved by us.

Thus, in all cases, gray wolf take for scientific, educational, and conservation purposes must benefit the gray wolf DPS and must promote its recovery. Therefore, any take of this nature will not negatively impact these DPSs.

#### C. Disease or Predation Disease

Many diseases and parasites have been reported for the gray wolf, and

several of them have had significant impacts during the recovery of the species in the conterminous States. These diseases and parasites, and perhaps others, must be considered to be significant potential threats to gray wolf populations in the future. Thus, in order to avoid a disease/parasite-related decline in the gray wolf population, their presence and impacts require diligent monitoring and appropriate follow-up for the foreseeable future.

*Western Great Lakes Gray Wolves.* Canine parvovirus (CPV) is a relatively new disease that infects wolves, domestic dogs, foxes, coyotes, skunks, and raccoons. Recognized in the United States in 1977 in domestic dogs, it appeared in Minnesota wolves (based upon retrospective serologic evidence) live-trapped as early as 1977 (Mech *et al.* 1986). However, Minnesota wolves may have been exposed to the virus as early as 1973 (Mech and Goyal 1995). Serologic evidence of gray wolf exposure to CPV peaked at 95 percent of a group of Minnesota wolves live-trapped in 1989 (Mech and Goyal 1993). In a captive colony of Minnesota wolves, pup and yearling mortality from CPV was 92 percent of the animals that showed indications of active CPV infections in 1983 (Mech and Fritts 1987), demonstrating the substantial impacts this disease can have on young wolves. It is believed that the population impacts of CPV occur via diarrhea-induced dehydration leading to abnormally high pup mortality (WI DNR 1999).

There is no evidence that CPV has caused a population decline or has had a significant impact on the recovery of the Minnesota gray wolf population. However, Mech and Goyal (1995) found that high CPV prevalence in the wolves of the Superior National Forest in Minnesota occurred during the same years in which wolf pup numbers were low. Because the wolf population did not decline during the study period, they concluded that CPV-caused pup mortality was compensatory, that is, it replaced deaths that would have occurred from other causes, especially starvation of pups. They theorized that CPV prevalence affects the amount of population increase, and that a wolf population will decline when 76 percent of the adult wolves consistently test positive for CPV exposure. Their data indicate CPV prevalence in adult wolves in their study area increased by an annual average of 4 percent during 1979–93, and was at least 80 percent during the last 5 years of their study (Mech and Goyal 1995). Additional

unpublished data gathered since 1995 indicate that CPV reduced wolf population growth in that area from 1979 to 1989, but not since that period (Mech *in litt.* 1999). These data provide strong justification for continuing population and disease monitoring.

The disease probably stalled wolf population growth in Wisconsin during the early and mid-1980s. During those years the Wisconsin wolf population declined or was static, and 75 percent of 32 wolves tested by the same method were positive for CPV. During the following years (1988-96) of population increase only 35 percent of the 63 wolves tested positive for CPV (WI DNR 1999). CPV exposure rates were at 50 percent in live-captured Wisconsin wolves in 1995-96 (WI DNR 1999), but there is no necropsy evidence of CPV mortalities from Wisconsin wolves (Nancy Thomas, National Wildlife Health Laboratory, *in litt.* 1998). However, the difficulty of discovering CPV-killed pups must be considered.

Canine parvovirus is considered to have been a major cause of the decline of the isolated Isle Royale, Michigan, population in the mid and late 1980s. The Isle Royale gray wolf population decreased from 23 and 24 wolves in 1983 and 1984, respectively, to 12 and 11 wolves in 1988 and 1989, respectively. The wolf population remained in the low to mid-teens through 1995. However, factors other than disease may be causing a low level of reproductive success, including a low level of genetic diversity and a prey population composed of young healthy moose that may make it difficult to secure sufficient prey for pups. There are no data showing any CPV-caused population impacts to the larger gray wolf population on the Upper Peninsula of Michigan (Peterson *et al.* 1998).

Sarcoptic mange is caused by a mite infection of the skin. The irritation caused by the feeding and burrowing mites results in scratching and then severe fur loss, which in turn can lead to mortality from exposure during severe winter weather. From 1991-96 27 percent of live-trapped Wisconsin wolves exhibited symptoms of mange. During the winter of 1992-93 58 percent showed symptoms, and a concurrent decline in the Wisconsin wolf population was attributed to mange-induced mortality (WI DNR 1999). Seven Wisconsin wolves died of mange during the years 1993 through October 15, 1998, and severe fur loss affected five other wolves that died from other causes. During that period mange was the third largest cause of death in Wisconsin wolves, behind trauma

(usually vehicle collisions) and shooting (Nancy Thomas *in litt.* 1998).

In a long-term Alberta wolf study, higher wolf densities were correlated with increased incidence of mange, and pup survival decreased as the incidence of mange increased (Brand *et al.* 1995). At least seven wild Michigan wolves died from mange during 1993-97, making it the most common disease of Michigan wolves. The Michigan Wolf Management Plan acknowledges that mange may be slowing wolf population growth and specifies that captured wolves be treated with Ivermectin to combat the mites (MI DNR 1997). MI DNR currently treats all captured wolves with Ivermectin, vaccinates them against CPV and canine distemper virus (CDV), and administers antibiotics to combat potential leptospirosis infections.

Wisconsin wolves similarly had been treated with Ivermectin and vaccinated for CPV and CDV when captured, but the practice was stopped in 1995 to allow the wolf population to experience more natural biotic conditions. Since that time, Ivermectin has been administered only to captured wolves with severe cases of mange. In the future, Ivermectin and vaccines will be used sparingly on Wisconsin wolves, but will be used to counter significant disease outbreaks (Adrian Wydeven *in litt.* 1998).

Mange has not been documented to be a significant disease problem in Minnesota. Several packs in the Ely and Park Rapids areas are known to suffer from mange, and a pack at Agassiz NWR in northwestern Minnesota was reduced from at least five wolves (the pack may have numbered six to eight in the early 1990s) to a single animal over the last few years, primarily due to mange.

Lyme disease, caused by a spirochete, is another relatively recently recognized disease, first documented in New England in 1975; it may have occurred in Wisconsin as early as 1969. It is spread by ticks, who pass along the infection to their various host species during tick feeding episodes. Host species include humans, horses, dogs, white-tailed deer, white-footed mice, eastern chipmunks, coyotes, and wolves. The prevalence of Lyme disease in Wisconsin wolves averaged 70 percent of live-trapped animals in 1988-91, but dropped to 37 percent during 1992-97. While there are no data showing wolf mortalities from Lyme disease, it may be suppressing population growth through decreased wolf pup survival. Lyme disease has not been reported from wolves beyond the Great Lakes regions (WI DNR 1999a).

Other diseases and parasites, including rabies, canine distemper, canine heartworm, blastomycosis, brucellosis, leptospirosis, bovine tuberculosis, hookworm, coccidiosis, and canine hepatitis have been documented in wild gray wolves, but their impacts on future wild wolf populations are not likely to be significant (Brand *et al.* 1995, Johnson 1995, Mech and Kurtz 1999, Thomas *in litt.* 1998, WI DNR 1999a).

In aggregate, diseases and parasites were the cause of 25 percent of the diagnosed wolf deaths from 1960-97 in Michigan (MI DNR 1997) and 19 percent of the diagnosed mortalities of radiocollared wolves in Wisconsin from 1979-98 (Wydeven 1998).

Since several of the diseases and parasites are known to be spread by wolf to wolf contact, their incidence may increase as wolf densities increase in newly colonized areas. However, because wolf densities generally are relatively stable following the first few years of colonization, wolf to wolf contacts will not likely lead to a continuing increase in disease prevalence (L. David Mech *in litt.* 1998).

Disease and parasite impacts may increase because several wolf diseases are carried and spread by dogs. This transfer of diseases and parasites from domestic dogs to wild wolves may increase as gray wolves continue to colonize non-wilderness areas (Mech *in litt.* 1998). Heartworm, CPV, and rabies are the main concerns (Thomas *in litt.* 1998).

Disease and parasite impacts are a recognized concern of the State departments of natural resources. The Michigan Gray Wolf Recovery and Management Plan states that necropsies will be conducted on all dead wolves and that all live wolves that are handled will be examined and blood, skin, and fecal samples will be taken to provide disease information. All wolves that are handled will be vaccinated for CDV and CPV and treated for parasites before release (MI DNR 1997). These steps will continue even if the gray wolf is federally reclassified to threatened.

Similarly, the Wisconsin Wolf Management Plan has a section on wolf health monitoring. It states that as long as the wolf is State-listed as a threatened or endangered species the WI DNR will conduct necropsies of dead wolves and a sample of live-captured wolves will be tested for diseases and parasites. The goal will be to capture and screen 10 percent of the State wolf population for diseases annually. Following State delisting (after the State wolf population grows to 250 animals) disease monitoring will be scaled back because

the percentage of the wolf population that is live-trapped each year will decline, but periodic necropsy and scat analyses will continue to test for disease and parasite loads. The plan also recommends that all wolves live-trapped for other studies should have their health monitored and reported to the WI DNR wildlife health specialists (WI DNR 1999a).

In summary, several diseases have had significant impacts on wolf population growth in the Great Lakes region in the past. These impacts have been both direct, resulting in mortality of individual wolves, and indirect, by reducing longevity and fecundity of individuals or entire packs or populations. Canine parvovirus stalled wolf population growth in Wisconsin in the early and mid-1980s, and it has been implicated as a contributing factor in declines in the isolated Isle Royale population. Sarcoptic mange has impacted wolf recovery in both Michigan's Upper Peninsula and in Wisconsin in this decade, and is recognized as a continuing problem. However, despite these and other diseases and parasites, the overall trend for wolf populations in the western Great Lakes States is upward. The wolf management plans of Michigan and Wisconsin include monitoring components that are expected to identify future disease and parasite problems in time to allow corrective action to be taken to avoid a significant decline in overall population viability. We do not believe disease impacts will have significant adverse effects on wolf recovery in the western Great Lakes States.

*Western Gray Wolves.* Wolves in the northern U.S. Rocky Mountains are exposed to a wide variety of canid diseases, which are common throughout North America. Some of these diseases and parasites have been documented to significantly affect wolf populations, usually temporarily, in other areas of North America. However, in the studies of wolves in Montana, Idaho, and Wyoming to date, disease and parasites have not appeared to be a significant factor affecting wolf population dynamics. Just like wolves in all other parts of North America, wolves in the Northern Rocky Mountains will occasionally die from a wide variety of canid diseases. However, it is doubtful that wolf populations in the northern Rocky Mountains could be significantly impacted, because wolf exposure to these diseases has been occurring for decades. The environmental impact statement (EIS) on gray wolf reintroduction identified disease impact as an issue but did not evaluate it further, because it appeared not to be

significant (U.S. Fish and Wildlife Service 1994a). Likewise, in the "Wolves for Yellowstone?" reports to Congress in 1992, Johnson (1995b and 1995c) reviewed the relationship between wolves and rabies, brucellosis, and tuberculosis and found canids were not likely to be a reservoir for those diseases.

*Southwestern (Mexican) Gray Wolves.* There is no evidence suggesting that disease was a significant factor in the decline of the Mexican wolf. Likewise, there is no reason to believe that disease will be a significant impediment to recovery of the Mexican wolf in the wild. Because the potential for disease and parasite transmission is much greater in captivity, especially in zoos, all captive Mexican wolves are vaccinated or treated for potential canine diseases and parasites that may exist in the captive environment.

As a result of captive disease and parasite prevention and treatment protocols, released wolves are in good health and physical condition when they enter the wild. Re-established Southwestern (Mexican) wolves will be monitored for disease or parasite-related problems.

#### Predation

There are no wild animals that habitually prey on gray wolves. Occasionally wolves will be killed by large prey such as deer or moose (Mech and Nelson 1989) or possibly by a competing predator such as a mountain lion, but this has only been documented on rare occasions and is not believed to be a significant mortality factor. However, humans are highly effective predators of gray wolves.

*Western Great Lakes Gray Wolves.* Wolves are killed by other wolves, most commonly when a dispersing wolf encounters another pack and is attacked as an intruder, or when two packs encounter each other along their common territorial boundary. This form of mortality is likely to increase as more of the available wolf habitat becomes saturated with wolf pack territories, as is already the case in northeastern Minnesota. Over the period from October 1979 through June 1998 (13 percent) wolves of the diagnosed mortalities of radiocollared Wisconsin wolves were a result of wolves being killed by other wolves (Wydeven 1998). However, this behavior is a normal part of the species' behavioral repertoire and should not be a cause for concern in healthy wolf populations as it normally indicates that the wolf population is at, or approaching, the carrying capacity of the area.

Humans have functioned as highly effective predators of the gray wolf as

we attempted to eliminate them from the landscape in earlier times. The United States Congress passed a wolf bounty that covered the Northwest Territories in 1817. Bounties on wolves subsequently became the norm for States across the species' range. In Michigan an 1838 wolf bounty became the ninth law passed by the First Michigan Legislature; a bounty remained in place until 1960. A Wisconsin bounty was instituted in 1865 and then repealed about the time wolves were extirpated from the State in 1957. Minnesota maintained a wolf bounty until 1965.

Subsequent to its listing as a federally endangered species, protection of the gray wolf under the Act and under State endangered species statutes prohibited the killing of wolves except under extenuating circumstances, such as in defense of human life, for scientific or conservation purposes, or under several special regulations intended to reduce wolf depredations on livestock. This reduction in human-caused mortality is the main cause of the wolf's comeback in parts of its historical range. However, it is clear that illegal killing of wolves still continues.

Illegal killing of wolves occurs for a number of reasons. Some of these killings are accidental (*e.g.*, vehicle collisions, mistaken for coyotes and shot, caught in traps set for other animals), and some of these incidents are reported to State, Tribal, and Federal authorities. However, it is likely that most illegal wolf killings are intentional and are never reported to authorities. Such killings may be done out of frustration over wolf depredations on livestock or pets, fear for the safety of pets or children, hatred of the species, opposition to wolf recovery, as a form of protest against the government, or for other reasons. The number of illegal killings is difficult to determine, because they generally occur in isolated areas and the evidence is quickly concealed.

There are two Minnesota studies that provide insight into the extent of human-caused wolf mortality before and after the species' listing. Based upon bounty data from a period that predated wolf protection under the Act by 20 years, Stenlund (1955) found an annual human-caused mortality rate of 0.41 wolves (that is, 41 out of 100 wolf mortalities were human-caused). Fuller (1989) provided 1980–86 data from a north-central Minnesota study area and found an annual human-caused mortality rate of 0.27. (Fuller's mortality rate excludes wolves killed as part of the wolf depredation control program.) However, drawing conclusions from

these two data sets is difficult due to the confounding effects of habitat quality, exposure to humans, prey density, differing time periods, and vast differences in study design. While these figures provide support for the contention that human-caused mortality decreased subsequent to the wolf's protection under the Act, it is not possible at this time to determine if human-caused mortality (apart from mortalities from depredation control) has significantly changed during the 25-year period that the gray wolf has been listed as threatened or endangered.

Interestingly, when compared to his 1985 survey, Kellert's 1999 public attitudes survey showed an increase in the number of northern Minnesota residents who reported having killed, or knowing someone who had killed, a wolf. However, members of groups that are likely to encounter wolves—farmers, hunters, and trappers—reported a decrease in the number of such incidents (Kellert 1999). Due to these apparently conflicting results, and differences in the methodology of the two surveys, it is difficult to draw any clear conclusions on this issue.

It is important to note that despite the difficulty in measuring the extent of illegal killing of wolves, their population and range in the western Great Lakes States has continued to increase. During recent decades all sources of wolf mortality, including legal (takings for research and depredation control activities) and illegal human-caused mortality, have not stopped the continuing growth of the wolf population, estimated at a 4 to 5 percent average annual increase in Minnesota, and about a 30 to 35 percent average annual increase in Wisconsin and Michigan. This indicates that total gray wolf mortality continues to be exceeded by recruitment (that is, reproduction and immigration) into these areas.

As the wolf population in Wisconsin and Michigan achieves habitat saturation or as the cultural carrying capacity is approached, the rapid growth rates are expected to slow and likely will eventually stop. We should then expect to see negative growth rates (that is, wolf population declines) in some years, due to short-term fluctuations in birth and mortality rates. However, adequate wolf monitoring programs, as identified in the Michigan, Wisconsin, and Minnesota (submitted by MN DNR in 1999 but not approved by the Legislature) wolf management plans, should be able to identify excessively high mortality rates and low birth and/or survival rates and to trigger timely corrective action when

necessary. Michigan and Wisconsin DNRs are currently monitoring their wolf populations in this manner, and we fully expect this level of monitoring will continue if those wolves are reclassified to threatened status. The goals of all three State wolf management plans are to maintain a within-state wolf population that is well above the size identified in the Federal Eastern Recovery Plan for viable isolated wolf populations.

In Wisconsin, human-caused mortalities accounted for 58 percent of the diagnosed mortalities on radiocollared wolves from October 1979 through June 1998. One-third of all the diagnosed mortalities, and 55 percent of the human-caused mortalities, were from shooting. Another 12 percent of all the diagnosed mortalities resulted from vehicle collisions. Vehicle collisions have increased as a percentage of radiocollared wolf mortalities. During the October 1979 through June 1995 period only one of 27 known mortalities was from that cause, but from July 1995 through June 1998 5 of the 26 known mortalities resulted from vehicle collisions (WI DNR 1999a, Wydeven 1998).

In the Upper Peninsula of Michigan human-caused mortalities accounted for 75 percent of the diagnosed mortalities, based upon 34 wolves recovered from 1960 to 1997. Twenty-eight percent of all the diagnosed mortalities and 38 percent of the human-caused mortalities were from shooting. In the Michigan Upper Peninsula during that period about one-third of all the known mortalities were from vehicle collisions (MI DNR 1997). During the 1998 Michigan deer hunting season three radiocollared wolves were shot and killed, resulting in one arrest and conviction; the other two cases remain under investigation (Hammill *in litt.* 1999, Michigan DNR 1999b).

A continuing increase in wolf mortalities from vehicle collisions is expected as wolves continue their colonization of areas with more human developments and a denser network of roads.

A significant portion of the intentional illegal mortalities may arise as a protest against the Federal government or from frustration due to a perception of inadequate Federal depredation control programs or inadequate State compensation for depredated livestock and dogs. The proposed action in the Western Great Lakes DPS—reclassifying Wisconsin and Michigan wolves to threatened and implementing a special regulation for lethal depredation control, with no change in the protection provided to

threatened Minnesota wolves—is expected to have both positive and negative impacts on illegal wolf mortality.

In Wisconsin and Michigan, the rapidly expanding wolf population is beginning to cause more depredation problems. For example, from 1991 through 1996 only one Wisconsin wolf was captured for depredation control. In 1997 two wolves were trapped and moved to eliminate depredation problems. In 1998 four wolves had to be captured as a result of depredation problems. For Wisconsin and Michigan, special management regulations under section 4(d) of the Act would provide increased flexibility and efficiency in dealing with these problem wolves (See Special Regulations Under Section 4(d) for Threatened Species). This may result in greater public satisfaction with the States' abilities to promptly and effectively deal with depredation incidents, and may reduce the perception that wolves are out of control and vigilante action is needed to reduce their numbers.

Wolves were extirpated in the Dakotas in the 1920s and 1930s and were rarely reported from the mid-1940s through the late 1970s. From 1981 to 1992 10 wolves were killed in the Dakotas, with 5 of them killed from 1991 to 1992. Two more were killed in North Dakota after 1992. There have been other recent reported sightings of gray wolves, including a confirmed sighting by U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (APHIS-Wildlife Services) personnel in 1996 near Gary, South Dakota, and a 1994 confirmation of a den with pups in extreme north central North Dakota. Several other unconfirmed sightings have been reported from extreme northeastern and southeastern South Dakota. Wolves killed in North and South Dakota are most often shot by hunters who have mistaken them for coyotes or are killed by vehicles.

Additional discussion of past and future wolf mortalities in the Western Great Lakes DPS arising from depredation control actions is found under factor D. *The inadequacy of existing regulatory mechanisms.*

Despite human-caused mortalities of wolves in the western Great Lakes States, it is clear that these populations have continued to increase in both numbers and range. As long as other mortality factors do not increase significantly, and the wolf populations receive adequate and timely monitoring to document (and counteract, if necessary) the effects of excessive human-caused mortality, we believe the

Minnesota and Wisconsin-Michigan wolf populations will not decline to non-viable levels, nor will recovery slow, in the foreseeable future due to human-caused killing or other forms of predation.

*Western Gray Wolves.* Since wolves have been monitored in Montana, Idaho, and Wyoming only one wolf has been confirmed to have been killed by another predator. That lone reintroduced wolf was killed by a mountain lion in 1995. Wolves in the northern Rocky Mountains inhabit the same areas as mountain lions, grizzly bears, and black bears, but conflicts rarely result in the death of either species. Wolves are occasionally killed by prey that they are attacking but those instances are rare. Since 1987, wolves in the northern Rocky Mountains have apparently died from wounds they received while attacking prey on about four occasions. This level of mortality will not significantly affect wolf recovery. Other wolves are the largest cause of natural predation among wolves. Wherever wolves occur, including Montana, Idaho, and Wyoming, some low level of mortality due to territorial conflict between wolves is common. Those incidents occur but are so infrequent that they do not cause a level of mortality that would significantly affect a wolf population that is at or above recovery levels.

Humans are the largest cause of wolf mortality and the only cause that can significantly affect wolf populations at recovery levels. The annual survival rate of immature wolves in northwestern Montana and adjacent Canada from 1984 to 1995 was 80 percent (Pletscher *et al.* 1997); 84 percent for resident wolves and 66 percent for dispersers. That study found 84 percent of immature wolf mortality to be human-caused. Fifty-eight wolves from northwestern Montana with functioning radiocollars have died since 1987, and humans caused the death of 49 (84 percent). Wolves are more likely to be radiocollared if they come into conflict with people, so the proportion of mortality caused by agency depredation control actions could be over-estimated by this study. People who illegally kill wolves may destroy the radiocollar so the proportion of illegal mortality could be under-estimated.

As was typically the case elsewhere in North America, humans were the largest cause of wolf mortality in northwestern Montana. Wolf control was the leading cause of death for wolves in northwestern Montana. Of 28 wolves from northwestern Montana that were relocated and released because of conflicts with livestock, humans caused

the death of 96 percent. Only two females lived long enough after relocation to reproduce, and both of them were killed by people within months of whelping. Injuries during capture or confinement ultimately caused the death of 7 of those 28 relocated wolves.

In central Idaho, 25 of 35 original reintroduced wolves have functioning radiocollars and continue to be monitored. In addition, new radiocollars have been placed on an additional 24 wolves. One radiocollared wolf from northwestern Montana has dispersed into central Idaho. Eleven radiocollared wolves have died. Sixty-four percent of the wolf mortalities were human-caused. Fewer wolves have died in Idaho than in either the Greater Yellowstone Area or northwestern Montana. Causes of natural mortality in Idaho were starvation and mountain lion predation.

Over three times as many radiocollared wolves have died in the Greater Yellowstone Area than in central Idaho. Humans caused 68 percent of mortalities in the Greater Yellowstone Area. Sources of natural mortalities included other wolves (4), prey (2), avalanches (1), old age (1), and unknown causes (2).

The EIS (U.S. Fish and Wildlife Service 1994a) predicted that 10 percent of the reintroduced wolves would be removed annually for depredation control with an additional 10 percent dying annually from other causes. Out of 66 original reintroduced and 69 other wolves radiocollared for monitoring purposes over the past 4 years in central Idaho and the Greater Yellowstone Area, 45 (33 percent) have died. Most (68 percent) wolf mortality was human-caused. Annual mortality has been below the 20 percent annual level that was predicted in the EIS. Reintroduced wolves had a lower proportion of human-caused mortality compared to naturally colonizing wolves because they were released in remote areas where contact and conflicts with people were less likely. Relocated depredating wolves in northwestern Montana had a higher proportion of human-caused mortality (96 percent) than either reintroduced (61 percent) or naturally colonizing wolves in northwestern Montana (71 percent excluding legal harvest in Canada). In northwestern Montana relocated depredating wolves traveled widely and often resettled in places similar to the areas that they had been removed from, typically private ranch land. Consequently they continued to come into conflict with people and livestock.

The levels of documented human-caused mortality among wolves in the northern Rocky Mountains have not, at this time, been significant enough to cause declines in wolf populations. The protection of wolves under the Act appears sufficient to promote wolf population growth. Under the provisions of the experimental population rules for the central Idaho and Yellowstone areas, wolf population growth has been high. Although special management regulations under section 4(d) of the Act would allow some expanded take of problem wolves outside the experimental population areas, such regulations would still sufficiently protect wolves from human persecution. Continued rapid growth towards recovery levels is therefore expected (See Special Regulations Under Section 4(d) for Threatened Species).

Enforcement of the Act's prohibitions on taking wolves listed as "experimental" and "endangered" has been successful to date. Twelve wolves have been illegally killed in the experimental areas, and six cases have been resolved. In northwestern Montana nine wolves were known to have been illegally killed, and four cases have been resolved. Fines have ranged from \$500 to \$10,000, with jail sentences being imposed for some violators. The legal or illegal killing documented to date has not been at a level that could affect wolf population growth to recovery levels.

Two yearling experimental wolves were legally killed (one each in Montana and Idaho) under the provisions of the experimental population special regulation by livestock producers who saw the wolves attacking livestock. They reported shooting the wolves to authorities within 24 hours as required. Both investigations confirmed compliance with the experimental rules, and no further action was taken. So far, wolves have been unintentionally killed by vehicles, coyote cyanide (M-44) devices, and traps, and during control and management actions, but investigations of these incidents concluded that prosecution was not warranted. These types of mortalities are relatively rare and will not affect wolf population growth to recovery levels.

Special management regulations under section 4(d) of the Act would allow for the legal take of wolves under more circumstances than the existing special regulation. The existing special management regulations under section 10(j) of the Act will continue to apply to the two nonessential experimental populations in the Northern U.S. Rocky

Mountains (See Special Regulations Under Section 4(d) for Threatened Species). Therefore, we do not expect wolf mortality rates to change significantly as a result.

*Northeastern Gray Wolves.* The proposed special management regulations under section 4(d) of the Act would give State and Tribal conservation agencies that actively undertake wolf recovery actions, such as a reintroduction effort, new regulatory flexibility to address problems caused by these wolves or their progeny (See Special Regulations Under Section 4(d) for Threatened Species). We are not proposing to authorize the incidental or intentional take of gray wolves that naturally occur in the Northeast. Special management regulations under section 4(d) of the Act will have no immediate effect on the protection afforded any naturally occurring or recolonizing gray wolves in the States of New York, Vermont, New Hampshire and Maine. However, if future wolf reintroductions occur in the Northeast, and conditions allowing incidental or intentional take pursuant to special management regulations under section 4(d) of the Act are met, it will not be possible in every instance to distinguish naturally occurring wolves from the unmarked progeny of reintroduced wolves. Therefore, in the event that one or more States or Tribes actively reintroduce wolves into the Northeast, some incidental or intentional take of naturally occurring wolves may occur in the future.

*Southwestern (Mexican) Gray Wolves.* As of mid-February, 2000, illegal killing has been confirmed as the cause of death of 4 of the 34 Mexican wolves that have been released to the wild. However, we do not believe that predation or illegal killing will preclude recovery of the Mexican wolf. Killing or capture and permanent confinement of gray wolves for scientific and educational purposes is discussed under Factor B, above.

#### *D. The Inadequacy of Existing Regulatory Mechanisms.*

Upon being listed under the Act the gray wolf immediately benefitted from a Federal regulatory framework that includes— prohibition of take, which is defined broadly under the Act to include killing, injuring, or attempting to kill or injure; prohibition of habitat destruction or degradation if such activities harm individuals of the species; the requirement that Federal agencies ensure their actions will not likely jeopardize the continued existence of the species, coupled with the requirement that Federal agencies implement measures to reduce the

incidental adverse effects of their actions; and the requirement that we develop and implement a recovery program for the species. In addition, the 1978 designation of critical habitat in Minnesota and Michigan (43 FR 9607) further requires Federal agencies to ensure that their actions do not result in the destruction or adverse modification of those designated areas. These protective regulations and conservation measures have substantially improved the status of the gray wolf.

*Western Great Lakes Gray Wolves.* A June 29, 1998, announcement by Secretary of Interior Bruce Babbitt and Service Director Jamie Rappaport Clark described, in part, our intention to propose a delisting of gray wolves in the Western Great Lakes. That intention was based, in large part, upon our belief that State wolf management plans for Minnesota, Wisconsin, and Michigan would either be completed, or would be sufficiently close to completion, so that our delisting and reclassification proposal could be based, in part, upon an analysis of the protective mechanisms and management strategies and actions to be described in those plans.

In late 1997 the Michigan wolf management plan was completed and received the necessary State approvals. By mid-1998 the Wisconsin wolf management plan was available as a public draft; it has since been revised, released as a second draft for public review and comment, and has undergone further revision. The Wisconsin Natural Resources Board approved the plan in October of 1999. Our biologists have participated on the teams that developed these two State plans, so we are familiar with their evolution and likely future direction. We believe that these plans provide sufficient information for us to analyze the future threats to the gray wolf population in Wisconsin and Michigan after Federal delisting.

The Minnesota Legislature failed to approve a State Wolf Management Plan and regulatory bill during the 1999 legislative session that would allow us to conclude that the future of the Minnesota wolf population would be assured, as is recommended by the recovery criteria for the Eastern Timber Wolf (See Other Alternatives Considered). Furthermore, as of mid-February, 2000, the Minnesota Legislature had not considered the wolf management bill produced by the Minnesota DNR in early 2000. Therefore, we are not proposing to delist wolves in the Western Great Lakes. Rather we are proposing to reclassify wolves in Wisconsin, Michigan, North Dakota, and South Dakota to threatened.

Upon adoption of an adequate State wolf management plan and regulatory bill for Minnesota, we will consider delisting wolves in the Western Great Lakes.

If this proposed regulation is finalized, wolves will continue to be protected by the provisions of the Act throughout this DPS. The regulatory changes that will take place are twofold—wolves in Wisconsin, Michigan, North Dakota, and South Dakota will be protected as a threatened species, rather than as an endangered species; and for the first time wolves in those four States will be subject to limited, but routine, lethal depredation control measures under the terms of the special regulation that we are proposing under section 4(d) of the Act.

The only direct change in protection that would result from a reclassification from endangered to threatened was discussed above, under *B. Overutilization for Commercial, recreational, scientific, or educational purposes.* The change stems from the broader authority of Service or State employees, or their designated agents, to take a threatened species without a Federal permit. Furthermore, we can issue permits to take threatened species for a somewhat wider variety of purposes than for endangered species. The impact of this increased take authority on wolf recovery is believed to be insignificant; additional discussion is found in that earlier section.

The second impact of this reclassification is indirect, and it stems from our ability to implement special regulations under section 4(d) of the Act for threatened, but not endangered, species. We are using that authority to propose a special regulation for the lethal control of depredating wolves in Wisconsin, Michigan, North Dakota, and South Dakota, in a form that is very similar to that authorized by the special regulation that has been in effect for Minnesota wolves since December 12, 1985 (50 FR 50792). The proposed special regulation will allow the killing of depredating wolves by certain government employees or agents, subject to several restrictions.

*Depredation Control Programs in the Western Great Lakes States.* Wolves that are injuring and/or killing domestic animals in the western Great Lakes States are currently controlled in different ways, depending upon their listing under the Act and their importance to our gray wolf recovery programs. In Minnesota depredating wolves have been lethally controlled under a special regulation, because they are listed as threatened. Section 4(d) of

the Act allows lethal take of threatened animals under a special regulation. (Details on the Minnesota depredation control program are provided later in this subsection.)

Depredating wolves in Wisconsin and Michigan, listed as endangered and therefore not eligible for a section 4(d) special regulation, currently are being trapped and released in suitable and unoccupied habitat at some distance from the depredation location. The goal of this approach is to eliminate future depredations by the individual wolf by moving it to suitable, but vacant, habitat at a location with abundant wild prey, and with minimal or no exposure to domestic animals. However, the results of this approach vary widely. In some cases the wolf will become resident at the new site and will not resume its previous habit of preying on domestic animals. In other cases the wolf attempts to return to its previous territory, continues its depredations on domestic animals at the new site, or is killed by nearby resident wolves. This approach has a greater chance of succeeding if there are several areas of suitable unoccupied habitat from which to choose for release of the wolf, so that a release location can be selected that is very remote from the wolf's previous territory.

However, the rapidly growing wolf populations in both Wisconsin and Michigan make it increasingly difficult to find suitable, but unoccupied, habitat into which a depredating wolf can be successfully released. In the most recent incident of the capture and translocation of a depredating wolf in Wisconsin, the animal left the release site and had traveled half of the distance back to its capture site before being mistaken for a coyote and shot (Wydeven *in litt.* 1999).

Due to the decreasing effectiveness of translocating depredating wolves, and the high cost of making such attempts, the States of Wisconsin and Michigan have requested the authority to carry out lethal depredation control measures, similar to what has been done by APHIS-Wildlife Services in Minnesota. As the wolf population grows in number and expands in range in those two States, those wolves will increasingly use more agricultural areas and will be exposed to additional domestic animals as potential prey. We believe that special management regulations under section 4(d) of the Act would provide increased flexibility and efficiency in managing wolves (See Special Regulations under Section 4(d) for Threatened Species.)

Based upon depredation control statistics from Minnesota, we expect the

lethal take of Wisconsin and Michigan wolves to be very small during the next few years. Data from Minnesota clearly show that an expanding wolf population's increasing exposure to domestic animals will likely lead to increased depredation incidents, and the need for additional lethal control of those wolves. From 1980 to 1984, with a late winter wolf population of about 1350 animals, an annual average of 2.2 percent of the Minnesota wolf population was killed by APHIS-Wildlife Services to reduce depredation problems. From 1985 to 1989, with a late winter wolf population of about 1600 wolves, the annual average of wolves killed for depredation control increased to 3.0 percent. Additional increases have occurred in the 1990s.

With the current Wisconsin and Michigan (Upper Peninsula) late winter wolf populations at 200 or less in each State, we estimate that about 2 percent of those wolves will be taken through lethal depredation control annually, or about 4 or 5 wolves in each State. Given the average annual population increases of 30 to 34 percent over the last 6 years in each of these States, the effect of such levels of lethal depredation control will not prevent the continued growth of the wolf population in either State, and will probably be so small that it does not noticeably slow that growth over the next few years. Wolf recovery will not be affected in either State. Reporting and monitoring requirements will ensure that the level of lethal depredation control is evaluated annually and can be curtailed if necessary. Therefore, we do not believe that lethal depredation control will be a significant threat to the future of wolves in either Michigan or Wisconsin, or that it will result in a need to reclassify those wolves as endangered in the foreseeable future.

Only one wolf has been killed for depredation control purposes in Wisconsin and Michigan. An adult wolf was killed by the WI DNR in 1999, under the provisions of a permit that we issued. This was done to end a chronic depredation problem at a private deer farm after the failure of extensive efforts to live-trap and remove the wolf (WI DNR 1999b).

For both North Dakota and South Dakota we have anticipated potential wolf depredation problems associated with mostly single, dispersing wolves from the Minnesota and Manitoba populations. To cope with these anticipated depredations we have had a "Contingency Plan for Responding to Gray Wolf Depredations of Livestock" in place for each State for several years (U.S. Fish and Wildlife Service 1992b,

1994b). In partnership with APHIS-Wildlife Services and State animal damage control agencies, the contingency plans provide for the capture and permanent transfer to American Zoo and Aquarium Association (AZA)-approved holding facilities, such as zoos, captive breeding centers, or research facilities, of all depredating or injured/sick wolves in North Dakota and South Dakota. The lethal control of depredating and injured/sick wolves is authorized by the plans only if no AZA-approved holding facilities could be identified. Verified wolf depredations occur approximately once every other year in North Dakota, with the most recent occurring in June of 1999; there have been no verified wolf depredations in South Dakota in recent decades. To date, neither state has found it necessary to implement either the non-lethal or lethal control measures authorized under the contingency plans, although confirmed wolf sightings and some incidents of wolf depredation continue to occur.

North Dakota and South Dakota are recognized as lacking significant recovery potential for the gray wolf. Therefore, lethal control of depredating wolves in these two States will not adversely affect the Western Great Lakes DPS recovery program. We believe that special management regulations under section 4(d) of the Act to allow lethal control of depredating wolves would help to promote greater public acceptance of the gray wolf recovery programs being carried out in areas where wolf recovery is feasible (See Special Regulations under Section 4(d) for Threatened Species). Furthermore, such regulations would allow Federal, State, and Tribal agencies in the Dakotas to be even more responsive to depredation incidents, thus, minimizing conflicts between wolves and livestock production. In addition, such regulations would eliminate the costs, time, and facilities needed to capture, transport, and house live gray wolves.

We expect a much higher proportion of North Dakota and South Dakota wolves to become involved in depredation than the approximately 2 or 3 percent we expected in Wisconsin and Michigan. Thus, if the Minnesota wolf population continues to expand and provide additional dispersing wolves, lethal depredation control activities in North Dakota and South Dakota may also kill on the order of four or five wolves annually in each of these two States. These mortalities will neither slow the recovery of the Minnesota and Michigan-Wisconsin wolf populations nor delay the eventual delisting of the Western Great Lakes DPS, because the

Eastern Plan does not rely on wolves in North Dakota or South Dakota to achieve any of its recovery criteria.

This proposal will not affect the current section 4(d) special regulation for wolf depredation control in Minnesota, and we expect that program will continue unchanged. During the period from 1980 through 1998 the Federal Minnesota wolf depredation control program has annually euthanized from 20 (in 1982) to 216 (1997) gray wolves. The annual average was 30 wolves killed from 1980 to 1984, 49 from 1985 to 1989, 115 from 1990 to 1994, and 152 from 1995 to 1998. Based upon estimates of the Minnesota wolf population during these periods, these numbers represent an average annual removal of approximately 2.2 percent, 3.0 percent, 6.0 percent, and 6.7 percent of the total population during those four multi-year periods, respectively. The lowest annual percentage of Minnesota wolves destroyed by APHIS-Wildlife Services was 1.5 percent in 1982; the highest percentage was 9.4 in 1997.

There is no evidence that this level of wolf removal for depredation control purposes has halted the increase in wolf numbers or range in Minnesota, although it is quite possible that the depredation control program may have slowed wolf population growth, especially since the late-1980s. Because the Minnesota wolf population has continued to grow at an average annual rate of 4 to 5 percent since 1989, we believe that it is highly likely that a viable wolf population will continue to exist in Minnesota if a lethal depredation control program of this magnitude is continued. However, monitoring of the wolf population will become increasingly important if the percentage of wolves killed for depredation control continues to increase, or if other mortality factors increase in magnitude. Annual monitoring may become necessary to enable timely corrective action, including reduction of lethal depredation control activities, if the Minnesota wolf population begins to decrease or to contract in geographic range. At this time, however, it appears that continuing the current magnitude of lethal depredation control under the existing special regulation will not significantly suppress the Minnesota wolf population.

*State and Tribal Management and Protection of Wolves.* The Wisconsin Wolf Management Plan recommends immediate reclassification from State-endangered to State-threatened status because the State's wolf population has already exceeded the State reclassification criterion of 80 wolves

for 3 years. The Plan further recommends the State manage for a gray wolf population of 350 wolves outside of Native American reservations, and states the species should be delisted by the State once the population reaches 250 animals outside of reservations. Upon State delisting, the species would be classified as a "protected nongame species," a designation that would continue State prohibitions on sport hunting and trapping of the species. The Wisconsin Plan includes criteria that would trigger State relisting as threatened (a decline to fewer than 250 wolves for 3 years) or endangered (a decline to fewer than 80 wolves for 1 year). State reclassification to threatened, and possibly State delisting, will occur while the wolf is still federally listed as threatened or endangered. If the wolf is both federally and State-delisted proactive wolf control by government trappers in problem areas could occur. In addition, the taking of wolves by the public in Wisconsin would be considered to keep the wolf population within the range of social tolerance if other control measures have failed to do so; however, the social tolerance level has not yet been determined. Public taking of wolves will not occur while the wolf remains federally listed as threatened or endangered. The Wisconsin plan will be reviewed annually by the Wisconsin Wolf Advisory Committee and will be reviewed by the public every 5 years.

Both the Wisconsin and Michigan Wolf Management Plans recommend managing wolf populations within each State as isolated populations that are not dependent upon frequent immigration of wolves from an adjacent State or Canada. Thus, each State will be managing for a wolf population at, or in excess of, the 200 wolves identified in the Federal Recovery Plan for the Eastern Timber Wolf as necessary for an isolated wolf population to be viable. We support this approach and believe it provides further assurance that the gray wolf will remain a viable component of the western Great Lakes ecosystem in the foreseeable future.

The Wisconsin and Michigan wolf management plans recommend similar high levels of protection for wolf den and rendezvous sites, whether on public or private land. Both State plans recommend that most land uses be prohibited at all times within 100 meters (330 feet) of active sites. Seasonal restrictions (March through July) should be enforced within 0.8 km (0.5 mi) of these sites, to prevent high-disturbance activities such as logging from disrupting pup-rearing activities.

These restrictions should remain in effect even after State delisting occurs.

While the Tribes do not yet have management plans specific to the gray wolf, several Tribes have informed us that they have no plans or intentions to allow commercial or recreational hunting or trapping of the species on their lands even if gray wolves were to be federally delisted. As previously discussed in the section *Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*, Tribes are expected to continue to provide sufficient protection to gray wolves on reservation lands to preserve the species' long-term viability in the western Great Lakes area.

Based upon information received from other Federal land management agencies in the western Great Lakes area, we expect National Forests, units of the National Park System, and National Wildlife Refuges will provide additional protections to threatened gray wolves beyond the protections that will be provided by the Act and its regulations, State wolf management plans, and State protective regulations. Refer to the discussion under Factor A. *The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range* for Details.

*Northeastern Gray Wolves.* Except as provided by special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species.), the current Federal regulatory framework will remain in effect largely unchanged for those wolves in the Northeast proposed to be reclassified to threatened status. The Act and implementing regulations under 50 CFR 17.31 provide nearly the same level of protection to both endangered and threatened species. The exceptions to this equal protection are twofold.

First, we can issue permits to take threatened species from the wild for a wider variety of purposes than for endangered species. The additional purposes are for educational use, zoological exhibition, and for other special purposes consistent with the Act, that is, for purposes consistent with the conservation of the species.

Second, an employee of the Service or of a State conservation agency which is operating under a conservation program pursuant to the terms of a cooperative agreement with us in accordance with section 6(c) of the Act, who is designated by his agency for such purposes, may take threatened species in the course of official duties, to carry out conservation programs for that species.

Because both of these provisions allow take of threatened species for purposes that are intended to promote the conservation of the species, the additional take that results from these provisions must be small and must be beneficial to the Northeastern DPS.

In addition, special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species) will also authorize additional take, both intentional and incidental, of gray wolves if the take is done under conditions specified in a Service-approved wolf conservation plan. (Refer to *Northeastern Gray Wolf DPS special regulations*, below, for additional discussion.) These conservation plans, and all actions carried out under their authority, must have the conservation of the gray wolf as their purpose.

We do not believe this additional management flexibility provided by a reclassification to threatened status and the proposed special regulation will adversely impact the recovery of gray wolves. On the contrary, we believe the additional flexibility will promote wolf recovery in those areas by making it easier for State, Tribal, and local agencies, as well as private organizations, to become more involved in the activities essential to wolf recovery—educational programs, wolf reintroductions, and capture and relocation of nuisance wolves.

*Western Gray Wolves.* Currently, wolves in these States have two different listings under the Act—(1) Those wolves within the two nonessential experimental populations (all of Wyoming and most of Idaho and Montana) are treated as threatened wolves. However, for purposes of interagency cooperation (section 7 of the Act) those wolves are treated as species proposed for listing and receive limited consideration in the planning and implementation of Federal agency actions, unless those actions occur on units of the National Park System or the National Wildlife Refuge System, in which case the wolves are treated as a threatened species and are subject to the full protections of section 7. These wolves also are subject to two special regulations that modify the normal protections of the Act for threatened species (under the nonessential experimental population designation 59 FR 60252 and 60266; November 22, 1994). (2) Those wolves outside of the nonessential experimental populations are listed as endangered and are subject to the strictest protections afforded by the Act.

The proposed special management regulations under section 4(d) of the Act

(See Special Regulations under Section 4(d) for Threatened Species) would increase management flexibility for wolves in the Western DPS (but only in areas outside of the experimental population areas) because they would allow take under additional circumstances. Wolves near livestock could be harassed in a noninjurious manner at any time on private land or on public land by the livestock permittee. Intentional or potentially injurious harassment could occur by permit on private land and public land. Wolves attacking not only livestock, but also any domestic animals, on private land could be taken in the act of attacking domestic animals without a permit; on public land a permit would be required for such take. Permits would be required for taking wolves on private land if they are a risk to domestic animals and there are at least 10 breeding pairs of wolves in the State where the permit would apply.

The increased management flexibility for take is expected to reduce and more quickly resolve conflicts between livestock producers and wolves by providing additional methods by which individual problem wolves can be removed from the wild population. We do not expect the take under special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species) to result in a significant increase in the removal of problem wolves nor to appreciably slow wolf recovery, because much of that recovery is occurring, and will continue to occur, within the experimental population areas.

During the EIS process for the reintroduction of nonessential experimental wolves into the West (U.S. Fish and Wildlife Service 1994a) the States of Montana, Idaho, and Wyoming, as well as many State residents, asked that the States be delegated the authority and funding to assume the lead role in wolf restoration. The special regulations under the experimental population designation allowed this opportunity (59 FR 60252–60266 and 60266–60281; November 22, 1994), and all three States produced draft wolf management plans that were funded by us. However, none of the States' plans obtained sufficient public or political support, and they were abandoned. After nearly 3 years of internal debate, on August 19, 1997, the Governors of Montana, Idaho, and Wyoming signed a memorandum of understanding announcing that their States would not be directly involved in wolf management until gray wolves were removed from protections of the Act.

The memorandum also directed the States to be involved in recovery planning, assist in control of problem wolves, facilitate communication, and develop a tri-state plan by the year 2000 that would assist us in the timely delisting of wolves in the northern Rocky Mountains. This process will improve coordination of management of wolves that are listed as threatened.

In 1995, funding levels reduced our northern Rocky Mountains wolf recovery program staff from five people to two, and our direct involvement in wolf management declined. Fortunately, however, the Nez Perce Tribe began managing wolves in Idaho under a cooperative agreement with us in 1996, and personnel from Yellowstone National Park, APHIS-Wildlife Services, and our law enforcement agents assumed nearly all wolf management activities in the Greater Yellowstone Area. After the States formally declined direct involvement in wolf recovery, we redirected our wolf recovery funding to support development of the State wolf management plans to encourage State involvement in wolf recovery. In addition, due to the anticipation of the increased effort that more wolves will require under the special management regulations, we also used the redirected funding to station two Service biologists in Lander, Wyoming, and another two in Helena, Montana, beginning in January 1999. This additional effort by us will greatly assist in the management of gray wolves in the West and allow for full implementation of special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species).

*Depredation Control Programs in the Western DPS.* In the Northern U.S. Rocky Mountain wolf recovery area, reports of suspected wolf-caused damage to livestock are investigated by APHIS-Wildlife Services specialists using standard techniques (Roy and Dorrance 1976, Fritts *et al.* 1992, Paul and Gipson 1994). If the investigation confirms wolf involvement, APHIS-Wildlife Services specialists conduct wolf control in close coordination with us and Nez Perce Tribal personnel.

In northwestern Montana, wolf control under a section 10(a)(1)(a) permit is conducted only when livestock are attacked. In the experimental areas, wolf control can also occur when other domestic animals, such as dogs, are attacked on private land more than once in a calendar year. Control in both of these situations consists of the minimum actions believed necessary to reduce further depredations. The spectrum of

control measures used includes intensive monitoring of the wolves and livestock (including providing a telemetry receiver to the affected rancher), aversive conditioning (i.e., capturing, radiocollaring, and releasing wolves on site or harassing wolves with noise-makers such as cracker shells), relocating or killing some wolves, or some combination of these approaches. Control measures are continued until livestock depredations cease, even if all wolves eventually have to be removed. When five or fewer breeding pairs are in a recovery area, wolves are relocated on their first offense. When at least six breeding pairs are present, wolves can be killed after their first offense. Wolves that repeatedly depredated on livestock were killed.

In experimental areas, special regulations allowed landowners on private land and livestock producers on public land to harass wolves at any time. In the experimental areas, wolves attacking livestock on private land can be shot by landowners with a permit, and, after six breeding pairs are established, our permit can allow permittees to shoot wolves attacking livestock on public land. A private program has compensated ranchers full market value for confirmed and one-half market value for probable wolf-kills of livestock and livestock guard animals (Fischer 1989).

The control of problem wolves depredating livestock resulted in the removal of less than six percent of the wolves in northwestern Montana between 1987 and 1995. This level of mortality is not expected to prevent wolf populations from reaching recovery levels. Wolves in the Greater Yellowstone and central Idaho areas have attacked livestock less frequently than predicted. Wolf control removed a total of 45 wolves between 1995 and 1999. This represented less than six percent of the wolf population over a 5-year period. While it is expected that wolf control will continue to remove wolves that attack livestock from the population in the Western DPS, we still expect that wolf population recovery will be achieved by 2002. Management of wolves under the special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species) is not expected to significantly increase wolf mortality rates, because relatively few wolves attack livestock.

The only significant difference in the management of problem wolves between the current management and the proposed management of wolves following their reclassification from endangered to threatened would be the taking of wolves in the act of attacking

livestock or domestic animals on private land by private landowners. In the past 4 years in Idaho and Wyoming only two nonessential experimental wolves have been legally taken by landowners. That level of take could not significantly increase wolf mortality rates or decrease the rate of wolf population recovery.

During depredation control actions for problem wolves in Montana, Idaho, and Wyoming, individual wolves have incurred injuries from capture that ultimately resulted in their death or removal from the wild (one in Idaho and two in Montana). Mortality from capture is rare and not a significant portion of total mortality in the wolf population.

We have determined that effective control of problem wolves benefits the conservation of the species in the northern Rocky Mountains (U.S. Fish and Wildlife Service 1999).

*Southwestern (Mexican) Gray Wolves.* The listing status of Mexican Gray wolves will not change with this proposed regulation. They will continue to be endangered, except for the reintroduced population which will retain its current status of a nonessential experimental population.

#### *E. Other Natural or Manmade Factors Affecting its Continued Existence.*

*Public Attitudes Toward the Gray Wolf.* The primary determinant of the long-term status of gray wolf populations in the United States will be human attitudes toward this large predator. These attitudes are based upon the conflict between human activities and wolves, concern with the perceived danger the species may pose to humans, its symbolic representation of wilderness, the economic effect of livestock losses, the conviction that the species should never be a target of sport hunting or trapping, and the wolf traditions of Native American Tribes.

We have seen a change in public attitudes toward the wolf over the last few decades. Public attitude surveys in Minnesota and Michigan (Kellert 1985, 1990, 1999), as well as the citizen input into the wolf management plans of Minnesota, Wisconsin, and Michigan indicate strong public support for wolf recovery if the adverse impacts on recreational activities and livestock producers can be minimized (MI DNR 1997, MN DNR 1998, WI DNR 1999a).

This increased public acceptance of wolves during the last 25 years also has reduced illegal persecution and killing.

Similar national support is evident for wolf recovery and reintroduction in the Northern U.S. Rocky Mountains and appears to be developing for wolf recovery in the northeastern States. With the continued help of private conservation organizations, States, and

Tribes, we can continue to foster public support to maintain viable wolf populations in the western Great Lakes area and for recovery of wolves in the Northeast, West, and Southwest. We believe that special management regulations under section 4(d) of the Act (See Special Regulations under Section 4(d) for Threatened Species) will further foster public support for wolf recovery by providing more effective means for dealing with wolf-human conflicts.

*Southwestern (Mexican) Gray Wolves.* The primary factor currently affecting the continued existence of the Mexican wolf in the wild is the small number of individuals in the wild population. No wolves are known to exist in the wild in Mexico, and only 7 Mexican wolves exist in the wild in the United States (as of February 2000), most of which are captive-raised animals released by us since March 1998. The continued existence of the Mexican wolf depends upon the success of our reintroduction projects in the Southwest. The reintroduction plan requires an assessment of the success of the project at 3 and 5 years following the first releases. It is too soon to know which factors, if any, may affect the continued existence of Mexican wolves in the wild.

#### **Designation of Distinct Population Segments**

Currently, the gray wolf is listed as threatened in Minnesota and as endangered in the other 47 conterminous States, effectively establishing a Minnesota DPS that is delimited by State boundaries in the absence of any other indications of discreteness. This separate designation of Minnesota gray wolves as threatened was established in 1978, before our adoption of the 1996 Vertebrate Population Policy (61 FR 4722; February 7, 1996); this proposed rule brings the current listing of the gray wolf into compliance with the policy.

Due to the extensive geographic separation in current wolf distribution in the conterminous States, and based on the Vertebrate Population Policy, this notice proposes the reclassification of the gray wolf by establishing the following 4 DPSs within the conterminous 48 States and Mexico (refer to Map 2 located at the end of the Alternative Selected for Proposal section).

*Western Great Lakes Gray Wolf Distinct Population Segment.* Consisting of gray wolves within the States of North Dakota, South Dakota, Minnesota, Wisconsin, and Michigan, and those gray wolves in captivity that originated

from, or whose ancestors originated from, this geographic area.

*Southwestern (Mexican) Gray Wolf Distinct Population Segment.* Consisting of gray wolves in Arizona south of the Colorado River and the Little Colorado River between Hoover Dam and Winslow and south of Interstate Highway 40 between Winslow and the eastern State boundary; New Mexico south of Interstate Highway 40; Texas south of Interstate Highway 40 and west of Interstate Highway 35; and Mexico; and those gray wolves in captivity that originated from, or whose ancestors originated from, this geographic area.

*Western Gray Wolf Distinct Population Segment.* Consisting of gray wolves in the States of Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, and the parts of Arizona and New Mexico north of the Colorado River and the Little Colorado River between Hoover Dam and Winslow (Arizona) and north of Interstate Highway 40 between Winslow and the eastern boundary of New Mexico; and those gray wolves in captivity that originated from, or whose ancestors originated from, this geographic area.

*Northeastern Gray Wolf Distinct Population Segment.* Consisting of gray wolves within the States of New York, Vermont, New Hampshire, and Maine, and those gray wolves in captivity that originated from, or whose ancestors originated from, this geographic area.

The gray wolf populations within each of these proposed DPSs are separated from gray wolf populations in the other DPSs by large areas that are not occupied by, and may not be suitable for, breeding populations of resident wild gray wolves. Although dispersing individual gray wolves have been located in some of these unoccupied areas (Licht and Fritts 1994), and it is possible that individual dispersing wolves can completely cross some of these gaps between occupied areas, we believe that the existing geographic isolation of wolf populations between these four areas fully satisfies the Vertebrate Population Policy's criterion for discreteness of each DPS. The Vertebrate Population Policy allows us to use international borders to delineate the boundaries of a DPS even if the current distribution of the species extends across that border. Therefore, we will use the United States-Canadian border to mark portions of the boundaries of three of the DPSs due to the difference in control of exploitation, conservation status and regulatory mechanisms between the two countries. In general, wolf populations are more numerous and wide-ranging in Canada, therefore, wolves are not protected by

Federal laws in Canada and are publicly trapped in most Canadian provinces.

We further believe that each of these four wolf populations satisfies the significance criterion of the Vertebrate Population Policy. Without viable wolf populations in these four geographic areas the recognized historical range of the species within the 48 conterminous States would have extensive and significant gaps, possibly broader than the dispersal distance of the species (Fritts 1983). Additionally, the Western Great Lakes, Western, and Southwestern (Mexican) Gray Wolf Distinct Population Segments are each being repopulated by wolves of distinct morphological characteristics which may represent different gray wolf subspecies.

The existence of large areas of potentially suitable wolf habitat and prey resources in parts of New England, the possibility that wild wolves may exist in remote areas of Maine, and the presence of wolf populations in neighboring areas of eastern Canada form the basis for our consideration of a DPS for the gray wolf in the Northeast. We have determined that, based on the Vertebrate Population Policy, gray wolves that may exist in Maine are discrete from gray wolves elsewhere in the lower 48 States. We have also determined that a population of gray wolves in this portion of the lower 48 States is significant and will contribute to the overall restoration of the species. In addition, although taxonomic studies have provided conflicting conclusions regarding wolf taxonomy at the subspecies level, we believe it is likely that a separate form of the gray wolf historically occupied the northeastern United States and adjacent Canada. Establishing a Northeastern DPS maximizes the ability of the Service, States, and Tribes to reestablish this form, or its current-day equivalent. The wolves in Canada, which would serve as a source of animals for natural reestablishment or reintroduction, are thought to be taxonomically and genetically similar to the wolves that once populated the northeastern United States.

Establishing a Northeastern DPS with a classification of threatened under the Act would recognize that suitable habitat exists, that a genetically appropriate source of wolves may exist in Canada for natural colonization or reintroduction, that wolf recovery once initiated proceeds quickly based on our experience in the Rockies, and that management flexibility is critical to successful wolf reestablishment. Threatened status would maintain Federal protection for any wolves that

might disperse into historical wolf range in the northeastern United States from Canada. However, a threatened classification, rather than an endangered classification, allows us to develop a special regulation under section 4(d) of the Act. The proposed special regulation under section 4(d) of the Act is intended to promote the restoration and recovery of wolves to one or more States within the Northeastern DPS by providing interested States and Tribes with the authority to assume a leading role in carrying out protection, management, and recovery actions for the species. This flexibility will make it easier for States and Tribes to control and remove problem wolves, and will reduce opposition to wolf restoration in areas where they have been absent for many decades. Any wolf restoration program would be implemented only with the full cooperation of respective State and Tribal natural resource management agencies and general support of landowners and after full compliance with the National Environmental Policy Act.

As discussed earlier (refer to *Distinct Population Segments and Experimental Populations*), our current consideration of designating a multi-state Western Gray Wolf DPS does not mean that we now believe the existing experimental wolf populations and the natural wolf population in Idaho, Wyoming, and Montana constitute a single wolf population. For purposes of gray wolf reintroduction by means of experimental populations in central Idaho and Yellowstone National Park, we examined the biological characteristics of the species to determine if the reintroduced wolves would be geographically separate from other gray wolf populations. We defined a wolf population to be two breeding pairs, each successfully raising two or more young for two consecutive years in a recovery area (U.S. Fish and Wildlife Service 1994a). This wolf population definition was used to evaluate all wolves in the northern U.S. Rocky Mountains to determine if, and where, gray wolf populations might exist. Gray wolves in northwestern Montana qualified as a wolf population under this definition; that existing wolf population was further examined to determine if it was geographically separated from the potential experimental population areas. We determined that the northwestern Montana wolf population was geographically separate, so we designated the two experimental population areas and began gray wolf reintroductions to establish the two

experimental populations. The DPS designation under consideration here would be made for a different purpose and would have to satisfy different criteria than the experimental population designations.

#### **Wolves in Areas Beyond the Scope of Current Recovery Programs**

Although the gray wolf currently is listed as either threatened or endangered throughout the 48 conterminous United States and Mexico, all or portions of half of those States are not included within the geographic coverage of the 3 existing recovery plans. Due to the lack of suitable habitat in many of the areas beyond the current scope of recovery programs, these States cannot offer significant potential for gray wolf recovery. In fact, some of the States, for example, California, where the gray wolf currently is listed as endangered, were on the very edges of the former historical range, and wolves were likely never very numerous there.

Thus, we believe the purposes of the Act will be fulfilled if each part of the conterminous States and Mexico, is either (1) included within one of the four DPSs to provide protection for current populations including dispersing and recolonizing wolves, (2) included within one of the four DPSs in order to facilitate potential future restoration efforts in areas where restoration has been determined to be feasible or potentially feasible, or (3) delisted and all protections of the Act are ended for that area. This proposal adopts this approach mentioned above by designating four DPSs and delisting any wolves that may occur outside of the DPS boundaries. We believe this approach will result in the recovery of the gray wolf throughout significant portions of its historical range and ultimately allow us to delist it across the entire geographic area in which it is listed, consistent with the purpose and definitions of the Act.

Increasing numbers of wolves in Minnesota and an expansion of their range westward and southwestward in the State has led to an increase in dispersing, mostly young, wolves that have been documented in North and South Dakota in recent years. An examination of skull morphology of North and South Dakota wolves indicates that of eight examined, seven likely had dispersed from Minnesota; the eighth probably came from Manitoba, Canada (Licht and Fritts 1994). The low potential for the establishment of a viable and self-sustaining wolf population in North and South Dakota, and the belief that all or

most wolves in the Dakotas are biologically part of the Minnesota-Wisconsin-Michigan wolf population, leads us to believe that any wolves in these States should be included in the Western Great Lakes Gray Wolf DPS.

Extensive monitoring since 1990 indicates that wolves may be recolonizing Washington State, probably as dispersing wolves from Canada. Wolves appear to have been eliminated in the State by the 1930s, although occasional unconfirmed individual wolves are reported in the North Cascades and northeastern Washington. Observation data indicate that the wolves mostly occur as individuals, although several wolf family units have been reported in the North Cascades (Almack and Fitkin 1998). However, because efforts to locate family units have been unsuccessful, it is unclear whether wolves are reproducing in the North Cascades. Under their current listing, these animals are protected by the Act as endangered wolves, and we provide protection recommendations for den and rendezvous sites to Federal agencies on a site-specific basis. Furthermore, the State of Washington's forest practices rules provide seasonal protection to wolf den sites. However, the North Cascades are outside of the geographic scope of the Northern Rockies Plan. In order to retain the Act's protections for such wolves, and provide the potential for their inclusion within the Northern Rockies Recovery Program, we are now proposing that all of Washington and Oregon be included in the Western DPS.

A study to determine the feasibility of re-introducing wolves to the Olympic Peninsula was initiated in 1998 and was completed in early 1999. In addition, studies are underway to determine if sufficient habitat and prey base exist within and around Olympic National Park to support a viable wolf population. The initial feasibility study indicates that the existing habitat and land uses could support approximately 56 wolves in 6 to 7 packs within the Park (Ratti *et al.* 1999). However, until more detailed studies of the prey base are completed, we cannot determine the number of wolves that could be supported by the entire Olympic Peninsula, or assess the long-term viability of such a reintroduced population of gray wolves. Results of one prey base study completed in April, 1999 on lands within Olympic National Park determined appropriate survey methods for prey populations that will be crucial if reintroduction efforts move forward. Results of a study on lands outside of Olympic National Park are expected to be available by the middle

of 2000. Here again, the Olympic Peninsula is beyond the geographic scope of the Northern Rockies Plan, so we are proposing that all of Washington be included in the Western DPS.

Over the past 20 years there have been reports of wolves in several other western States, including Oregon, Colorado, and Utah. One radiocollared wolf from northwestern Montana was recently found dead from unknown causes in eastern Washington, and a radiocollared young female wolf from central Idaho dispersed into eastern Oregon in early 1999. Any wolves that are found in these areas at the current time are listed as endangered and are protected under the Act. While there is certainly habitat that could support wolves in these areas, at this time we have no plans to initiate wolf recovery for any areas in the western United States outside of the gray wolf recovery areas already identified in Montana, Idaho, Wyoming, Arizona, New Mexico, and Texas. However, our proposal to include these additional States within a Western DPS will maintain the protections of the Act for any wild gray wolves that disperse or are reintroduced into such areas while Western DPS gray wolves remain listed as threatened.

While we have no plans to actively pursue wolf restoration in other areas of the western United States, we will not actively prevent natural wolf recolonization in other areas. Wolves that naturally disperse into other States will be managed on a case-by-case basis. If there are no conflicts with human activities such wolves will likely not be returned to the area of their origin.

#### **Gray Wolves in Captivity**

We recognize that there are many gray wolves being held in captivity for a variety of reasons. Some of these are being held for research, propagation, or educational projects that are part of gray wolf recovery programs; many others are considered pets or are held for other reasons. We see no over-riding reason to retain the protections of the Act for such individuals if they or their ancestors were obtained from an area where wild gray wolves are now proposed for delisting and those wild wolves would no longer be protected by the Act. However, if the captive gray wolves or their ancestors originated from within the boundaries of a DPS that would retain the protections of the Act under this proposal, those captive wolves potentially can be a valuable part of the recovery program for that DPS. For example, they could serve as a potential source of wolves that could be released in the DPS.

Therefore, we have defined the four DPSs to include wolves living within the boundaries of the DPSs, as well as those captive wolves which were removed from the wild, or whose ancestors were removed from the wild, from within the geographic boundaries of a DPS, regardless of where the captive wolves may be held.

#### Other Alternatives Considered

We considered numerous alternatives to the actions proposed in this notice. These alternatives consisted of combinations of different geographic areas of coverage, changes in classification, and details and geographic areas of coverage of new special regulations.

We initially considered delisting gray wolves within the Western Great Lakes DPS, and on June 29, 1998, we announced (through a press release and media event) our intention to develop such a proposal. In addition, we also announced our intention to create four DPSs, reclassify the Western and Northeastern DPSs, and delist in other States not covered by a DPS. That announcement was based upon our expectation that State wolf management plans for Minnesota, Wisconsin, and Michigan would provide assurances of adequate wolf protection and management following Federal delisting. These assurances are one of the recovery criteria for delisting in the 1992 Eastern Recovery Plan. At that point we began drafting a proposal that included delisting the Western Great Lakes DPS.

At the time of our June 1998 announcement the Minnesota DNR had already held a series of 12 public meetings to receive input on the direction a State wolf management plan should take. The MN DNR subsequently established a Citizens Roundtable and asked that group to address the wolf management issues raised at the public meetings. The MN DNR submitted a wolf management plan, based on the Citizen Roundtable, to the MN Legislature in early 1999 in order to obtain the regulatory authority needed by the DNR to implement the plan.

We completed our analysis of post-delisting threats after the release of the February 1999 MN DNR wolf management plan; that plan closely followed the Roundtable's recommendations. We were prepared to publish a proposal to delist the gray wolves in the Western Great Lakes DPS, based in part on the MN DNR's plan. However, the MN Legislature did not approve the plan during the 1999 legislative session. Legislative approval is necessary to provide the MN DNR

with both the authorities and the funding to implement many of the recommended wolf management practices.

Therefore, at this time we are unable to carry out an adequate evaluation of the future threats, as required by the Act, to wolves in Minnesota following a potential Federal delisting. We are unable to determine what protective regulations will be developed, the extent of State law enforcement that will be provided, what wolf population targets will be used, what depredation control measures will be used, and how the wolf population and wolf health will be monitored. For a large predator like the wolf, which was subject to past extensive government eradication efforts, including bounties at Federal, State, county, and local levels, we believe it is important to have an approved Minnesota wolf management plan that clearly describes the beneficial management practices that will be implemented following Federal delisting. Given this high degree of uncertainty regarding the extent and direction of future management and protection of wolves in Minnesota, we decided it is premature to propose a delisting of this DPS.

We also considered reclassifying a larger or smaller DPS in the eastern United States—reclassifying the entire geographic area included in the Recovery Plan for the Eastern Timber Wolf; reclassifying that area plus North Dakota, South Dakota, Nebraska, and Kansas; reclassifying only Minnesota, Wisconsin, and Michigan; or reclassifying those three States plus adjacent States into which wolves might disperse. Because under the Vertebrate Population Policy State boundaries cannot be used to bisect the continuous range of a species, we have included North and South Dakota within the Western Great Lakes DPS. Wolf recovery in New York and several northern New England States appears biologically feasible and has some public support. We have chosen to list that area as a separate DPS and retain the protections of the Act for wolves that may recolonize or be reintroduced there, but to change their classification to threatened and promulgate a section 4(d) special regulation in order to maximize wolf management flexibility and, therefore, to promote a separate gray wolf recovery program in that area.

We considered retaining all gray wolves in the western States under an endangered status, because they have not yet achieved their reclassification criteria in the strictest sense. Those criteria were based upon our expectations of where wolf packs would

become established; the wolves have subsequently demonstrated their "preference" to establish pack territories that do not all fit within the boundaries of the recovery areas that we established in the Rockies Plan. However, these wolves are showing dramatic population growth in the areas that they have chosen, and we believe they no longer fit the definition of an endangered species. Instead, they fit the definition of a threatened species.

We believe that the listing status of all gray wolves in the conterminous States should be adjusted to accurately reflect their recovery progress and their risk of extinction. Furthermore, wolves in the northern U.S. Rocky Mountains have achieved the biological intent of the reclassification criteria—a total of over 200 adult wolves in more than 20 breeding pairs for 3 successive years.

In addition, the nature of wolves as a predator, which sometimes conflicts with human activities, causes the consideration of additional regulatory flexibility in order to control problem wolves and address other conflicts that might otherwise constrain recovery as wolf populations increase. The flexibility provided by the section 4(d) special regulation has been critically important to the success of wolf recovery in Minnesota. Similarly, wolf recovery to date in the nonessential experimental population areas of Idaho, Montana, and Wyoming has been greatly aided by the depredation control measures provided by the special regulations that were established by the nonessential experimental designation under section 10(j) of the Act. Extending this type of flexibility for wolf management beyond the experimental population areas in Idaho, Montana, and Wyoming should similarly expand the success of wolf recovery there. Reclassifying to threatened in the Western Gray Wolf DPS and the development of a 4(d) special regulation can provide that flexibility throughout the DPS.

We also considered removing the two existing nonessential experimental population designations in the northern U.S. Rocky Mountains. The anticipated merging of the three existing western subpopulations into a single expanding and dispersing gray wolf population (refer to *Dispersal of Western Gray Wolves*, above) indicates that their current treatment as two separate experimental populations and a third natural, non-experimental endangered population without a special regulation (in northwestern Montana) may no longer be appropriate or understandable to the general public. One approach to simplifying this increasingly complex

regulatory situation would be to bring all gray wolves throughout the northern U.S. Rockies under a single set of regulations that accurately reflects current and expected future progress toward recovery in the West and applies only the amount of protection that is appropriate to achieve full recovery. This could be accomplished by removing the two existing experimental population designations and substituting a Western DPS-wide threatened classification with a section 4(d) special regulation.

Under this alternative all wolves throughout Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, and the northern portions of Arizona and New Mexico would become threatened wolves and would then be subject to the more flexible management provisions of the proposed section 4(d) special regulation for the Western DPS. Currently many, but not all, of these wolves are subject to the existing more restrictive protections of the special regulation for the Central Idaho and Greater Yellowstone Area nonessential experimental populations (See "Comparison of the Standard Protections of the Endangered Species Act \* \* \*" below). This alternative would result in a uniform protection and management situation in western States that not only would further reduce conflicts with human activities, but also would be more easily understood by livestock producers and residents. The increased management flexibility contained in the proposed section 4(d) special regulation would allow wolves to be intentionally harassed by private landowners without having to wait for an attack to occur, in addition to being able to take wolves that are in the act of attacking any domestic animals. Current regulations for the nonessential experimental populations allow landowners to take gray wolves only during attacks on their livestock. Other new provisions of the proposed 4(d) would allow us to issue permits for private citizens to take wolves posing a significant risk to domestic animals if there are 10 or more pairs present in that State, and would allow government trapping of problem wolves at all wolf population levels. We would not expect this to result in a significant increase in the removal of problem wolves nor to appreciably slow wolf recovery in the Western DPS. However, we rejected this alternative because we previously stated in our two November 22, 1994, **Federal Register** final rules establishing the Central Idaho and Greater Yellowstone DPSs that "The Service does not foresee any likely

situation which would result in changing the nonessential experimental status until the gray wolf is recovered and delisted \* \* \*" (59 FR pages 60266 and 60281). Due to that previous assurance to the public, we are not proposing the removal of the nonessential experimental population designations at this time despite the likely benefits we believe it would provide to livestock producers and private landowners.

We considered including all of the 48 conterminous States within one of the 4 DPSs. This would result in gray wolves retaining a threatened or endangered classification in many more States (for example, California, Nevada, New Jersey, Massachusetts, Kansas, and Arkansas). However, we do not believe that it is necessary to restore wolves to all 48 conterminous States in order to achieve the purposes of the Act with regard to the gray wolf. The Act contains no reference to the need to restore a species to all or most of its historical range in order to consider it recovered. We believe that recovery is achieved if viable populations are restored across a significant portion of the species' range to a point that it no longer fits the Act's definitions of endangered and threatened. In the case of the gray wolf, we believe the provisions of the Act are not needed where these 4 conditions jointly exist—(1) wolves currently do not occur, (2) wolves are unlikely to arrive on their own, (3) wolf restoration is not potentially feasible, and (4) wolf restoration is not needed to achieve recovery. Thus, we chose to propose the retention of the protections of the Act only in States where wolf recovery is needed to achieve the purposes of the Act and where wolf recovery is potentially feasible.

Finally, we also considered not making any changes in the legal status of the gray wolf. However, this would mean that the species retains its status as an endangered species despite the best available scientific and commercial information shows, in several key recovery areas, it now fits the definitions of a threatened species. It would unnecessarily prevent States and Tribes from managing a species of resident wildlife in a manner consistent with the needs of their citizens, residents, and members in the absence of an overriding national need for different or more protective management. We are obligated under the Act to continue protecting gray wolves only if they fit the Act's definitions of endangered or threatened species.

### Alternative Selected for Proposal

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by the gray wolf in determining to propose this rule. Based upon this evaluation, the preferred action is to reclassify gray wolves from endangered to threatened in the Western Great Lakes Gray Wolf DPS, the Northeastern Gray Wolf DPS, and Western Gray Wolf DPS, and to retain an endangered classification for gray wolves in the Southwestern (Mexican) Gray Wolf DPS (refer to Map 3 located at the end of this section). Gray wolves outside of these four DPSs would be removed from the protections of the Act. All three existing experimental population designations will be retained. To further promote gray wolf recovery and management within the Western and Northeastern Gray Wolf DPSs, special regulations under section 4(d) of the Act are proposed. The new special regulation for the Western DPS would only apply to areas outside of the existing experimental population areas. A new special regulation for Michigan, Wisconsin, North Dakota, and South Dakota wolves would also authorize lethal depredation control that is similar to that which has been used to further wolf recovery in Minnesota since 1985. The existing special regulation for Minnesota gray wolves and the critical habitat designations in Minnesota and Michigan would remain in effect.

With wolf populations of 197 and 174 in Wisconsin and Michigan (excluding Isle Royale), respectively, it is clear that those States have each surpassed the numerical reclassification criterion contained in the 1992 Eastern Plan of 80 wolves for 3 years. They have also surpassed the numerical delisting criterion, but the lack of a clear indication of future State wolf management and protection in Minnesota precludes proposing a delisting of these wolves at this time. Instead, proposing reclassification to threatened status for all endangered wolves within the Western Great Lakes DPS recognizes their greatly improved biological situation, provides us with the ability to implement a section 4(d) rule to allow lethal depredation control throughout the DPS, and yet retains Federal protection until such time as delisting is appropriate.

The gray wolves that occasionally appear in North and South Dakota are believed to be part of the Minnesota-Wisconsin-Michigan gray wolf population. These wolves are well isolated from the Montana, Idaho, and

Wyoming gray wolf populations. Therefore, they would be included in the Western Great Lakes DPS and will be reclassified to threatened status. In the future, if we are able to fully analyze the future threats to gray wolves in Minnesota, and appropriate measures are in place to assure their future survival, we will consider a proposal to delist gray wolves in the Western Great Lakes DPS.

There have been small numbers of gray wolves documented in North Dakota and South Dakota in recent years (Licht and Fritts 1994), but there is little likelihood that a viable wolf population can develop in these States in the foreseeable future, largely due to the absence of sufficiently large expanses of unbroken public land with a suitable prey base. Furthermore, a viable wolf population is not needed in either or both of these States for us to determine that western Great Lakes wolves have recovered. Thus, while North Dakota and South Dakota wolves would continue to be provided the protections of the Act as threatened species if this proposal is finalized, we do not intend to establish separate wolf recovery programs for wolves in those States. In recognition of the likelihood that wolves dispersing into these two States frequently will encounter domestic livestock and become predators of them, we are including North Dakota and South Dakota in the proposed 4(d) special regulation that allows lethal control of depredating wolves throughout the Western Great Lakes DPS.

Wolves in the northern U.S. Rocky Mountains are also making steady progress toward recovery. In 1999, wolves achieved the biological intent of the reclassification criterion in the Northern Rockies Plan—20 breeding pairs for 3 years (a total of about 200 adult wolves). Therefore, wolves in the Western DPS no longer meet the Act's definition of endangered ("any species which is in danger of extinction throughout all or a significant portion of its range"), and should be proposed for reclassification to threatened status.

While wolves in the four northeastern States exist in very low numbers, if present at all, we believe a number of factors justify the establishment of a Northeastern Gray Wolf DPS and reclassification to threatened status. We have determined that, based on the Vertebrate Population Policy, wolves that may exist in Maine are discrete from wolves elsewhere in the lower 48 States. We have also determined that a population of wolves in this portion of the lower 48 States is significant and will contribute to the overall restoration

of the species. In addition, there appears to be adequate habitat and a sufficient prey base for one or more viable wolf populations, and a source wolf population exists in nearby areas of Canada for dispersal or reintroduction of gray wolves into the Northeast. Public support for wolf recovery is evident in these States, although at this time we can not evaluate the scope of that support, or the degree of opposition to wolf recovery. Finally, the special regulation that we are proposing for the Northeastern DPS is intended to reduce wolf-human conflicts and land-use restrictions, and therefore the threat of wolf persecution by humans should significantly diminish. Because human-caused wolf mortality is the primary threat to continued viability of wolf populations worldwide, reducing this threat should significantly increase the likelihood of successful wolf recovery in the Northeast.

Wolves in the Southwestern (Mexican) Gray Wolf DPS will remain endangered if this proposed regulation is finalized. Wolf reintroduction in that area is still in its initial stages, and its success is not yet assured. Human-caused mortalities of reintroduced gray wolves in 1998 show that there still is much to be done to reduce the threats to a level where a viable wolf population can be reestablished.

This proposal would not remove the two existing nonessential experimental population designations for gray wolves in the northern U.S. Rocky Mountains. Those experimental population designations would remain superimposed on the geographically larger Western DPS where wolves would be listed as threatened. The regulations associated with those two experimental population designations would remain in effect; the new section 4(d) special regulation for the Western DPS would apply only to areas outside of the experimental population areas.

Similarly, this proposal would not remove the existing nonessential experimental population designation for gray wolves in the Southwestern (Mexican) DPS. The nonessential experimental population designation would remain superimposed on a geographically larger area where wolves would remain listed as endangered.

In addition to proposing to reclassify gray wolves in three DPSs, we are proposing to reduce the geographic area in which gray wolves would continue to be protected by the Act. We believe that several decades of conducting wolf recovery activities have made it clear that the recovery goals of the Act can readily be achieved for the gray wolf without maintaining protection for the

species throughout the many States within its historical range where gray wolf recovery is no longer potentially feasible or is not necessary under the Act.

When a species is first listed as threatened or endangered under the Act we normally apply that listing and its resultant protection across the entire recognized historical range of the species in order to retain a wide spectrum of options for its recovery. As recovery programs are implemented and progress, we gain important information concerning the areas where restoration is necessary and feasible. We also become aware of areas where restoration is unnecessary or unlikely to be successful. For species listed across a broad geographic area, it is especially appropriate for us to use this type of recovery information to reduce or eliminate the Act's restrictions and impacts in those areas where restoration is not necessary or potentially feasible. This is consistent with our Interagency Cooperative Policy on Recovery Plan Participation and Implementation Under the Endangered Species Act (59 FR 34272; July 1, 1994) which established our policy to minimize the social and economic impacts arising from the recovery of species listed as threatened or endangered under the Act.

We anticipate successful restoration of viable gray wolf populations in the four DPSs. Upon achieving this recovery of the gray wolf, the species will no longer qualify as either a threatened or endangered species within the definitions of the Act. Thus, we have chosen to also remove the protections of the Act from any gray wolves that may occur now or in the future in all other geographic areas outside of the boundaries of the four DPSs. Gray wolves will remain listed as endangered, threatened, or as experimental populations only in Mexico, the entire States of Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, Arizona, New Mexico, New York, Vermont, New Hampshire, Maine, Minnesota, Wisconsin, Michigan, North Dakota, South Dakota, and part of Texas.

We recognize that there is significant private and public interest in initiating programs to restore gray wolves to areas outside of the four proposed DPSs where the gray wolf will remain listed as threatened or endangered. This proposal should not be interpreted that such interest and any resulting non-Service wolf restoration programs are unwise, unjustified, infeasible, or otherwise ill-advised. Rather, with this proposal we are stating that our mandate to recover gray wolves under

the Act does not require our initiation of such efforts. Our future role in gray wolf recovery would focus only on those four areas where wolves will remain listed as threatened, endangered,

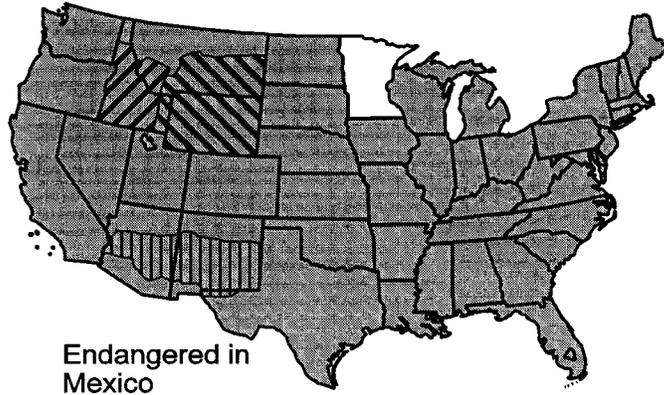
or as experimental populations. However, we remain willing to provide assistance, as budget and staff limitations allow, to other wolf restoration efforts that may be initiated

by other partners, including private organizations.

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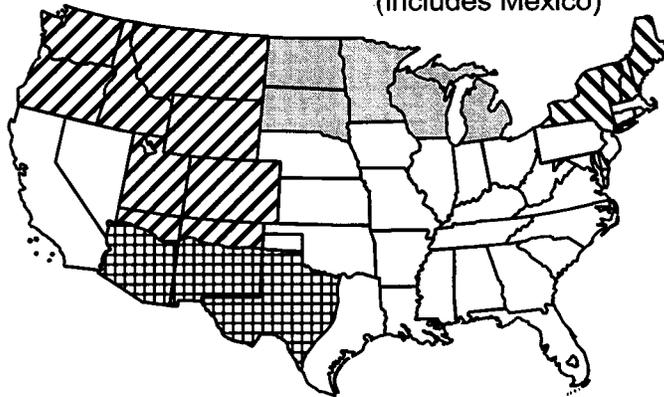
### Map 1 - Current Listing

- Endangered
- Threatened
- ▨ Nonessential Experimental Populations



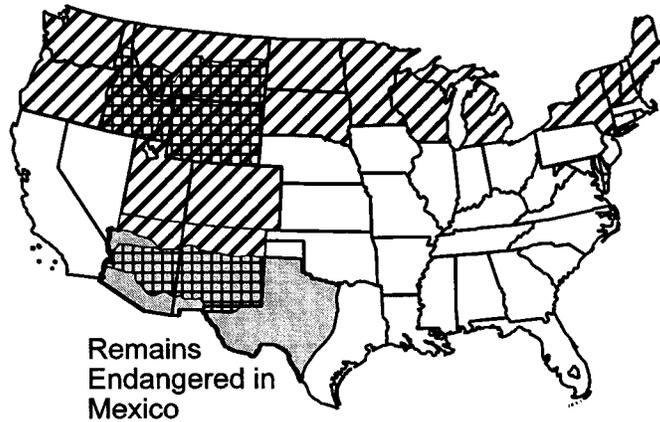
### Map 2 - Proposed Distinct Population Segments

- Western Great Lakes
- ▨ Northeastern
- ▧ Western
- ▩ Southwestern (includes Mexico)



### Map 3 - Proposed Listing

- Endangered
- ▨ Threatened
- Delisted
- ▩ Nonessential Experimental Populations



### Critical Habitat

Critical habitat was designated for the gray wolf in 1978 (43 FR 9607). That rulemaking (50 CFR 17.95(a)) identifies Isle Royale National Park, Michigan, and Minnesota wolf management zones 1, 2, and 3, as delineated in 50 CFR 17.40(d)(1), as critical habitat. Wolf management zones 1, 2, and 3 comprise approximately 3800 sq km (9800 sq mi) in northeastern and north central Minnesota. This proposal will not affect those existing critical habitat designations.

### Special Regulations Under Section 4(d) for Threatened Species

#### General

The Act and its implementing regulations found at 50 CFR 17.21 set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import, export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and agents of State conservation agencies.

The implementing regulations for threatened wildlife under the Act incorporate the section 9 prohibitions for endangered wildlife (50 CFR 17.31), except when a special regulation promulgated pursuant to section 4(d) applies (50 CFR 17.31(c)). Section 4(d) of the Act provides that whenever a species is listed as a threatened species, we shall issue regulations deemed necessary and advisable to provide for the conservation of the species. Conservation means the use of all methods and procedures necessary to bring the species to the point at which the protections of the Act are no longer necessary. Section 4(d) also states that we may, by regulation, extend to threatened species, prohibitions provided for endangered species under section 9.

In this proposal we are recommending retaining the special regulation that has been crucial to conserving the gray wolf in Minnesota, and are proposing a similar special regulation to provide similar authority for lethal control of depredating wolves in Michigan, Wisconsin, North Dakota, and South Dakota.

We are also proposing the establishment of two new special regulations for other geographic areas. One new section 4(d) special regulation would assist in managing the rapidly expanding gray wolf numbers in the Western DPS and will apply to wolves outside the boundaries of the currently designated nonessential experimental population areas. The existing 10(j) special regulations for the currently designated nonessential experimental populations in Montana, Idaho, and Wyoming will remain in effect. The other new section 4(d) special regulation is intended to encourage Northeast States and Tribes to become partners with us in wolf recovery in the Northeastern DPS. We intend to continue to work with the States and Tribes in developing management plans and agreements with the objective of recovery and eventual delisting of the gray wolf in the Western, Northeastern, and Western Great Lakes Gray Wolf DPSs. These three proposed section 4(d) special regulations would offer additional management flexibility to assist in meeting this objective.

The existing special regulation for the gray wolf nonessential experimental population in portions of Arizona, New Mexico, and Texas remains unaffected.

#### Continuation of Existing Special Regulations for Minnesota Gray Wolves

In 1978 we developed special regulations under section 4(d) of the Act for gray wolves in Minnesota in order to reduce the conflicts between gray wolves and livestock producers. These regulations were modified in 1985 (50 FR 50792; December 12, 1985, 50 CFR 17.40(d)) and remain unchanged. The regulations divided the State into five management zones and established the conditions under which certain State or Federal employees or agents may trap and kill wolves that are likely to continue preying on lawfully present domestic animals. The intent of these regulations was to provide an effective means to reduce the economic impact of livestock losses due to wolves. We believe that by reducing these impacts, private citizens would have less incentive to resort to illegal and excessive killing of problem wolves, and that consequently the recovery of the wolf would be hastened in Minnesota.

We operated this Minnesota Wolf Depredation Control Program from 1976 into 1986. However, in 1986 the Animal Damage Control Program was transferred by Congressional action from us to the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS). In 1997 the Animal Damage Control program was

renamed "Wildlife Services." APHIS-Wildlife Services continues to operate the Wolf Depredation Control Program in Minnesota. This proposal, if finalized, will not change the special regulations which authorize these wolf depredation control activities in Minnesota.

#### New Special Regulations

Special regulations are being proposed for the gray wolf populations in the western, northeastern, and Western Great Lakes States (excluding Minnesota) that will receive a threatened designation if this proposed regulation is finalized. The proposed special regulations are intended to promote the conservation of the gray wolf in those areas by reducing actual and perceived conflicts with human activities, thus reducing the likelihood and extent of illegal killing of wolves.

In the case of the Western Gray Wolf DPS, the proposed section 4(d) regulation will apply only to wolves outside of the nonessential experimental population areas. The existing 1994 special regulations that apply to the two nonessential experimental population areas (50 CFR 17.84(i)) will remain in effect. The proposed special regulations will allow similar, but increased, management flexibility for problem wolves in all areas of the Western DPS that are outside of the boundaries of the two experimental population areas. The existing experimental population special regulations, while not allowing the same degree of management flexibility, will remain in effect within the two experimental population areas as long as those experimental areas remain designated.

#### Western Gray Wolf DPS Special Regulations

The survival and recovery of the gray wolf in the northern U.S. Rocky Mountain region will continue to depend heavily on human tolerance of wolves. Human actions, legal and illegal, intentional and accidental, remain the primary cause of gray wolf deaths in the western half of the United States (Bangs *et al.* 1998). We are committed to reducing illegal killing of wolves through law enforcement and by minimizing the perception that such killings are "necessary" because wolves are causing too many problems.

The proposed section 4(d) regulations for threatened gray wolves in the Western DPS are designed to conserve the wolf population while addressing local public and State government concerns about conflicts between humans and wolves. The existing special regulations (50 CFR 17.84(i)) for

the central Idaho and Yellowstone nonessential experimental population areas were developed through years of extensive public involvement, scientific review, and agency coordination. To date those special regulations have been effective at both promoting rapid growth in wolf distribution and numbers toward recovery goals, and resolving conflicts with local residents who were fearful of excessive government regulation and ongoing wolf-caused losses of livestock and other domestic animals. During the years that wolf recovery has been occurring in the West we have learned a great deal about both actual and perceived conflicts between wolves and human activities, and we have also learned how these conflicts and perceptions can be reduced while allowing wolf recovery to proceed. Because of the knowledge we have gained during these years of wolf management and recovery, we believe we can provide several additional methods to reduce wolf-human conflicts during wolf recovery. Thus, the

proposed section 4(d) rule is very similar to, but provides more management flexibility than, the existing special regulations that have been successfully implemented for the Yellowstone and central Idaho nonessential experimental populations since January 1995. We believe that the proposed section 4(d) rule will further aid in the conservation and enhancement of the gray wolf in the Western DPS.

The proposed section 4(d) rule would continue to protect wolves under the Act. Wolves that do not depredate on domestic animals would be protected from take by the public, except for non-lethal harassment of wolves. Agencies would have management flexibility to take wolves under controlled circumstances, such as on the rare occasions that wolf predation may significantly affect wild ungulate populations, but only when such take would not affect wolf recovery. The proposed section 4(d) rules would allow increased flexibility by the public and

by agencies to manage those few wolves that come into conflict with people by attacking domestic animals. We believe that, by effectively managing problem wolves and including the affected public in that management, local tolerance of non-depredating wolves will be enhanced. Tolerance of wolves by the local public reduces illegal killing of wolves, allows more opportunity for the public and us to investigate innovative ways to reduce wolf/livestock conflicts without killing wolves (such as aversive conditioning), and enhances communication between resource agencies and people who live near wolves leading to more accurate data gathering on wolf restoration efforts. All this ultimately increases the likelihood of successful wolf recovery in the region.

The provisions of the current special regulations for the two nonessential experimental populations in the northern U.S. Rockies are compared with the proposed special regulation for the Western DPS in the following table.

COMPARISON OF THE NORMAL PROTECTIONS OF THE ENDANGERED SPECIES ACT WITH THE CURRENT EXPERIMENTAL POPULATION SPECIAL RULES AND THE PROPOSED SPECIAL RULE FOR THE NORTHERN U.S. ROCKY MOUNTAIN GRAY WOLVES

[Proposed Western DPS]

Provision	Current experimental populations special rules (50 CFR § 17.84(i))	Proposed section 4(d) special rule	Normal protections for an endangered species
Geographic area .....	This special rule applies only to wolves within the areas of two Nonessential Experimental Populations (NEP), which together include—Wyoming, the southern portion of Montana, and Idaho south of Interstate 90. These gray wolves are treated as a threatened species under the Endangered Species Act. Any wolves that disperse beyond this geographic area receive the full protection of the Endangered Species Act under a classification of endangered.	This special rule will apply to any gray wolves that occur throughout the area designated as the Western Distinct Population Segment (WDPS)—Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, and the northern portions of Arizona and New Mexico, except where listed as an experimental population. These gray wolves would be listed as threatened.	Throughout area in which it is listed as endangered.
Interagency Coordination (Sec. 7 consultation).	Federal agency consultation with the U.S. Fish and Wildlife Service on agency actions that may affect gray wolves is not required within the two NEPs, unless those actions are on lands of the National Park System or the National Wildlife Refuge System.	Federal agency consultation with the Service on agency actions that may affect gray wolves is required, but will not result in land-use restrictions unless needed to avoid direct take at active den sites between April 1 and June 30.	Federal agencies must consult with the U.S. Fish and Wildlife Service (Service) on all agency actions that may affect the gray wolf.
Opportunistic harassment.	Landowners and grazing allotment holders can opportunistically harass gray wolves in a non-injurious manner without a Service permit.	Identical to the current experimental population special rules.	Harassment is included within the definition of "take" and is prohibited.
Intentional harassment Permits.	No specific provision for intentional harassment permits. However, see provision below for "Permits for recovery actions that include take of gray wolves".	The Service can issue a 90-day permit to private landowners (not available for public grazing allotments) after verified persistent wolf activity on their private land; permit would allow intentional and potentially injurious, but non-lethal, harassment of wolves.	No specific provision for intentional harassment permits. However, see provision below for "Permits for recovery actions that include take of gray wolves."

COMPARISON OF THE NORMAL PROTECTIONS OF THE ENDANGERED SPECIES ACT WITH THE CURRENT EXPERIMENTAL POPULATION SPECIAL RULES AND THE PROPOSED SPECIAL RULE FOR THE NORTHERN U.S. ROCKY MOUNTAIN GRAY WOLVES—Continued

[Proposed Western DPS]

Provision	Current experimental populations special rules (50 CFR § 17.84(i))	Proposed section 4(d) special rule	Normal protections for an endangered species
Taking wolves "in the act" on PRIVATE land.	Livestock producers on their private land may take a gray wolf in the act of killing, wounding, or biting livestock. Injured or dead livestock must be in evidence to verify the wolf attack.	Similar to the current experimental population special rules, but this provision is broadened to also apply to gray wolves attacking any domestic animals.	No provision for such take.
Taking persistent problem wolves "in the act" on PUBLIC land.	If six breeding pairs of wolves are established in a NEP area, livestock producers and permittees with current valid livestock grazing allotments on public land may receive a 45-day permit from the Service or other agencies designated by the Service, to take gray wolves in the act of killing, wounding, or biting livestock. The Service must have verified previous attacks by wolves, and must have completed agency efforts to resolve the problem. The taking must be reported as soon as possible.	Same permits are available, but they can be issued regardless of the wolf population level. Also allows permits to take wolves attacking livestock guarding or herding animals or other domestic animals.	No provision for such take.
Permits for additional taking by private citizens on their private land.	No specific provision for such permits. However, see provision below for "Permits for recovery actions that include take of gray wolves".	If 10 or more breeding pairs are present in a State and the Service has determined that wolves are routinely present on private property and present a significant risk to domestic animals, a private landowner may receive a permit from the Service to take those wolves, under specified conditions.	No specific provision for such permits. However, see provision below for "Permits for recovery actions that include take of gray wolves."
Government take of problem wolves.	The Service or agencies designated by the Service may take wolves that attack livestock or that twice in a calendar year attack domestic animals other than livestock. When six or more breeding pairs are established in a NEP, lethal control of problem wolves or permanent placement in captivity may be authorized by the Service or agency designated by the Service. When five or fewer breeding pairs are established in a NEP, taking may be limited to non-lethal measures such as aversive conditioning, nonlethal control, and/or translocating wolves. If during depredation control activities on Federal or other public lands, prior to six breeding pairs becoming established in a NEP and prior to October 1, a female wolf having pups is captured, the female and her pups will be released at or near the site of capture. All problem wolves on private land, including female wolves with pups, may be removed (including lethal control) if continued depredation occurs. All chronic problem wolves (wolves that depredate on domestic animals after being moved once for previous domestic animal depredations) will be removed from the wild (killed or placed in captivity).	No numerical threshold applies, so all control measures, including lethal control, can be used regardless of the number of breeding pairs in a State. No upper threshold of six breeding pairs limiting protection of females and their pups prior to October 1 on public lands, thus females and their pups will be released if captured on public land, regardless of the number of breeding pairs of wolves. Otherwise, the proposed special rule is similar to the current experimental population special rules.	No provision for such take.

## COMPARISON OF THE NORMAL PROTECTIONS OF THE ENDANGERED SPECIES ACT WITH THE CURRENT EXPERIMENTAL POPULATION SPECIAL RULES AND THE PROPOSED SPECIAL RULE FOR THE NORTHERN U.S. ROCKY MOUNTAIN GRAY WOLVES—Continued

[Proposed Western DPS]

Provision	Current experimental populations special rules (50 CFR § 17.84(i))	Proposed section 4(d) special rule	Normal protections for an endangered species
Govt. translocation of wolves to reduce impacts on wild ungulates.	States and Tribes may capture and translocate wolves to other areas within the same NEP area, if the gray wolf predation is negatively impacting localized wild ungulate populations at an unacceptable level, as defined by the States and Tribes. State/Tribal wolf management plans must be approved by the Service before such movement of wolves may be conducted, and the Service must determine that such translocations will not inhibit wolf population growth toward recovery levels.	Similar to the current experimental population special rules, but translocated wolves must be released within the Western Distinct Population Segment. Additionally, the proposed special rule has a new provision: After 10 breeding pairs are established in a state, the Service, in cooperation with the states and tribes, may translocate wolves that it determines are impacting localized wild ungulate populations at unacceptable levels..	No provision for such relocation.
Protection of human life and safety.	The Service, or agencies authorized by the Service, may promptly remove (that is, place in captivity or kill) any wolf determined by the Service or authorized agency to be a threat to human life or safety.	Identical to the current experimental population special rules.	The Service, other Federal land management agency, a state conservation agency, or an agent of these, may take a wolf that is a demonstrable but non-immediate threat to human safety. (50 CFR 17.21(c)(3)(iv))
Take in self defense	Identical to the normal protections .....	Identical to the normal protections .....	Any person may harass or take (kill or injure) a wolf in self defense or in defense of others. (50 CFR 17.21(c))
Incidental take .....	Any person may take a gray wolf if the take is incidental to an otherwise lawful activity, and is accidental, unavoidable, unintentional, not resulting from negligent conduct lacking reasonable due care, and due care was exercised to avoid taking the wolf.	Similar in intent to the current experimental population special rules, with some minor wording changes.	Can be authorized by permit after Service approval of a habitat conservation plan. (50 CFR 17.22).
Permits for recovery actions that include take of gray wolves.	Available for scientific purposes, enhancement of propagation or survival, zoological exhibition, educational purposes, or other purposes consistent with the Act (50 CFR 17.32).	Identical to the current experimental population special rules.	Available for scientific purposes, and enhancement of propagation or survival (50 CFR 17.22).
Additional taking provisions for agency employees.	Any employee or agent of the Service or appropriate Federal, State, or Tribal agency, who is designated in writing for such purposes by the Service, when acting in the course of official duties, may take a wolf from the wild, if such action is for: (A) Scientific purposes; (B) to avoid conflict with human activities; (C) to relocate a wolf within the NEP areas to improve its survival and recovery prospects; (D) to return wolves that have wandered outside of the NEP areas; (E) to aid or euthanize sick, injured, or orphaned wolves; (F) to salvage a dead specimen which may be used for scientific study; or (G) to aid in law enforcement investigations involving wolves.	Identical to the current experimental population special rules, except it has an additional provision that allows such take of wolves "to prevent wolves with abnormal physical or behavioral characteristics from passing on those traits to other wolves".	Any employee or agent of the Service, a Federal land management agency, or a State conservation agency, who is designated in writing for such purposes, when acting in the course of official duties, may take a wolf from the wild if such action is to: (1) Aid a sick, injured, or orphaned specimen, (2) dispose of a dead specimen, or (3) salvage a dead specimen which may be useful for scientific study. (50 CFR 17.21(c)(3)).

COMPARISON OF THE NORMAL PROTECTIONS OF THE ENDANGERED SPECIES ACT WITH THE CURRENT EXPERIMENTAL POPULATION SPECIAL RULES AND THE PROPOSED SPECIAL RULE FOR THE NORTHERN U.S. ROCKY MOUNTAIN GRAY WOLVES—Continued

[Proposed Western DPS]

Provision	Current experimental populations special rules (50 CFR § 17.84(i))	Proposed section 4(d) special rule	Normal protections for an endangered species
Land-use restrictions on private or Federal lands.	When five or fewer breeding pairs of wolves are in an experimental population area temporary land-use restrictions may be employed on Federal public lands to control human disturbance around active wolf den sites. These restrictions may be required between April 1 and June 30, within 1 mile of active wolf den or rendezvous sites, and would only apply to Federal public lands or other such lands designated in State and Tribal wolf management plans. When six or more breeding pairs are established in an experimental population area, no land-use restrictions may be employed on Federal public lands outside of national parks or national wildlife refuges, unless that wolf population fails to maintain positive growth rates for two consecutive years.	Land-use restrictions may be employed for wolf recovery purposes on national parks and national wildlife refuges. Between April 1 and June 30 land-use restrictions may be employed to prevent direct take of wolves at active den sites on any Federal lands.	Various land-use restrictions may be employed on Federal lands if the Service believes they are necessary to recover the species and to minimize take of wolves. Land-use restrictions may be employed on private land and other non-Federal land if necessary to minimize take of wolves.

Under the proposed section 4(d) rule landowners would be allowed to harass wolves from areas where potential conflicts are of greatest concern, such as private property and near grazing livestock. In addition to the authority for landowners and livestock producers to opportunistically harass gray wolves in a non-injurious manner (as already allowed by the current special regulations within the two experimental populations), the proposed rule would allow us to issue temporary permits for deliberate harassment of wolves in an injurious manner under certain situations. Harassment methods that would be allowed under this provision include rubber bullets and shotgun shells containing small shot (#8). Since all such harassment would be nonlethal, and most is expected to be noninjurious, to wolves, no effect on wolf population growth is expected to occur. Fewer wolf depredations on livestock and pets should result from more focused and more unpleasant harassment of the problem wolves. Fewer depredations will result in fewer control actions, and consequently fewer wolves will be killed by management agencies. This provision allows us to work closely with the public to avoid conflicts between wolves and livestock or pets, thereby reducing the need for wolf control. Because we will have to confirm persistent wolf activity, and each intentional harassment permit will

contain the conditions under which such harassment could occur, there should be little potential for abuse of this management flexibility.

Under the proposed special regulation for the Western DPS, landowners would be allowed to take (kill or injure) wolves actually seen attacking their livestock on private land (as currently allowed by the current special regulations within the two experimental populations). The proposed special regulation would also expand this provision so that it applies to wolves attacking any domestic animals on private land outside of the experimental areas. Furthermore, the proposed special regulation would allow us to issue permits to take wolves seen attacking livestock and livestock guard or herding animals on public land. (The current special regulations that will continue to apply to the two experimental population areas do not allow such permits to be issued for attacks on guard or herding animals, and do not allow such permits to be issued if there are fewer than six breeding pairs of wolves in the experimental population area.) Because such take has to be reported and confirmation of livestock attacks must be made by agency investigators, we anticipate that no additional significant wolf mortality will result from this provision. However, those few wolves that are killed will be animals with behavioral traits that were not

conductive to the long term survival and recovery of the wolf in the northern Rocky Mountains. The required confirmation process will greatly reduce the chances that wolves that have not attacked domestic animals would be killed under this provision. Once a depredating wolf is shot, no further control on the pack would be implemented by the agencies unless additional livestock were attacked. This could result in even fewer wolves being taken in agency control actions, because the wolf that was killed would be the individual from that pack that was attacking livestock.

The proposed special regulation will allow us or other agencies and the public to continue to take wolves in the rare event that they threaten human life or safety. While this is a highly unlikely situation, and one that is already addressed by the Act and the current special regulation, emphasizing the Act's provision to defend human life and safety should reduce the public's concern about human safety.

The proposed special regulation would allow government agencies to remove problem wolves (wolves that attack livestock or twice in a year attack other domestic animals) outside the experimental areas using lethal methods regardless of the number of breeding pairs present in the area. (The current special regulations that will continue to apply within the two experimental

population areas allow lethal methods only if there are six or more breeding pairs present in that experimental population area.)

Prior to October 1 of each year, the proposed special regulation would require the release of trapped female wolves with pups, regardless of the number of breeding pairs on public land. (The current special regulations that will continue to apply within the two experimental population areas require the release of such female wolves if there are fewer than six breeding pairs present in that experimental population area.)

The proposed special regulation would allow us to issue permits for private landowners to take wolves on their private lands if 10 or more breeding pairs are present in the State and if we have determined that wolves are routinely present on that land and present a significant risk to domestic animals. (The current special regulations that will continue to apply within the two experimental areas have no provision for this type of permit to take wolves.)

The proposed special regulation addresses public concerns about the presence of wolves disrupting traditional human uses of public and private land. Except for within national parks and national wildlife refuges, the only potential restrictions on Federal lands, may be seasonal restrictions to avoid the take of wolves at active den sites. These seasonal restrictions would likely run from April 1 to June 30 of each year and apply to land within one mile of the active den site. Managing wolves in the northern Rocky Mountains has shown that successful wolf recovery does not depend upon land-use restrictions due to the wolves' ability to thrive in a variety of land uses. Since 1987, as a result of the experience we gained in the northern Rockies, we believe there is little, if any, need for land-use restrictions to protect wolves in most situations, with the possible exception of temporary restrictions around active den sites on Federal lands. Additionally, the public is much more tolerant of wolf recolonization if restrictive government regulations do not result from the presence of wolves. While the threatened status of wolves will require Federal agencies to consult under section 7, the proposed special regulation will simplify that process by stating that no land-use restrictions will be imposed except to protect wolves at active den sites on Federal lands, as described above.

All other provisions of the proposed section 4(d) special regulation for the Western DPS are identical or very

similar to the current special regulations that will continue to apply to the two nonessential experimental populations in the northern United States Rocky Mountains.

We reemphasize that the management flexibility provided by the current special regulation will continue to apply to the two nonessential experimental populations established in 1994 in Wyoming and in portions of Idaho and Montana (refer to Map 1). Currently, any western gray wolves that reside outside of, or disperse beyond, those experimental areas are protected under the Act as endangered gray wolves; thus, wolves in and around Glacier National Park in northwestern Montana are endangered wolves. Captured wolves known to be experimental are not endangered. In contrast, the proposed reclassification to threatened status and the proposed section 4(d) special regulation would apply a degree of greater management flexibility across the rest of the area defined as the Western DPS, which includes all of seven States and portions of two others.

In conclusion, the proposed 4(d) rule for the Western Gray Wolf DPS would continue to protect wolves from human persecution outside of the two experimental population areas, but would improve and expand the management options for problem wolves. By focusing management efforts on the occasional problem wolf, we believe that the public will become more tolerant of non-depredating wolves. Based on our experience with wolf recovery in Minnesota, this increased public tolerance is expected to result in fewer illegal killings of Western DPS wolves and more opportunity for us to work with local agencies and the public to find innovative solutions to potential conflicts between wolves and humans. Overall, we expect that this proposed special regulation will promote the conservation of the gray wolf and speed the species' recovery in the northern U.S. Rocky Mountains.

#### *Northeastern Gray Wolf DPS Special Regulations*

Using section 4(d) of the Act and 50 CFR 17.31(c), we propose to define the conditions under which intentional and incidental take of gray wolves resulting from activities regulated or carried out by State and Tribal governments will not violate section 9 of the Act or any regulations under 50 CFR part 17 that implement section 9, and thus could be performed without need for a permit under sections 10(a)(1)(A) or 10(a)(1)(B) of the Act. Under the proposed special regulation for the Northeastern DPS, the

normal provisions of 50 CFR 17.31(b) will continue to apply to any employee or agent of the Service and of a State conservation agency. Furthermore, incidental take of wolves when conducting otherwise lawful activities, regardless of their relationship to wolf conservation, addressed in a wolf conservation plan prepared by individual States or Tribes and approved by us, would not be considered a violation of section 9 of the Act.

The intent of this special regulation is to provide those northeastern States and Tribes that have an active interest in participating in gray wolf conservation the authority to maintain the lead role in protection, management, and recovery of the species. Importantly, this special regulation will increase the options for wolf restoration to portions of historical gray wolf range in the northeastern United States by providing greater regulatory flexibility to State and Tribal governments. Greater regulatory flexibility will enable participating States and Tribes to manage wolves released as part of a reintroduction effort and to address problem wolves, such as those that depredate domestic animals.

In addition to accommodating concerns for domestic animals, we realize that the effects of introduced wolves on moose and deer populations are significant concerns among State and Tribal wildlife agencies and hunters. There is concern that wolves compete with hunters for moose and deer. For this reason, we propose a special provision to allow limited lethal take of wolves by Service, U.S. Department of Agriculture, and State and Tribal agency personnel to take effect 5 years after reintroductions are completed in the Northeastern Gray Wolf DPS. Such take can occur only after the agency has informed us of the need for lethal control and established the extent to which individual packs will be reduced. No pack will be reduced by more than 30 percent, and no packs will be reduced more frequently than every 3 years.

This special regulation will provide northeastern State and Tribal governments that have developed and implemented a wolf conservation plan the following authority:

1. Lethal control of wolves depredating domestic animals. This authority does not extend to wolf pups less than 6 months of age.
2. Incidental take of wolves resulting from otherwise lawful activities that are included in the conservation plan.

3. Capture and relocation of wolves that have dispersed outside of areas considered suitable for wolf restoration.

4. Five years after reintroduction is completed, the capture and relocation of wolves that threaten ungulate populations of management concern will be allowable if consistent with the terms of the conservation plan.

5. Capture and lethal control of diseased wolves (*e.g.*, carriers of rabies or canine parvovirus) determined to be a potential threat to other wolves domestic animals, or humans.

We believe that activities that modify gray wolf habitat will not adversely affect or incidentally take gray wolves within northeastern State boundaries or on Tribal lands. Therefore, it is not anticipated that land use restrictions will generally be needed to achieve conservation for the wolf in the Northeast. Wolves can successfully inhabit a variety of habitats provided that adequate prey are available and that they are not persecuted by humans. However, we encourage States and Tribes to identify any such activities that may modify wolf habitat that result in incidental take, along with actions ongoing or planned to reduce the effects of those activities, and submit them to us as part of a wolf conservation plan.

When wolf conservation plans are received, we will make them available for public comment through **Federal Register** notice. We will consider public comments and the criteria outlined in this section to determine whether the plan will reduce threats and promote the conservation of the gray wolf within State boundaries or on Tribal lands. We will work closely with northeastern State or Tribal officials to revise or strengthen sections of the plan as may be necessary to obtain plan approval. We will comply with the National Environmental Policy Act and section 7 of the Endangered Species Act in reviewing and approving conservation plans.

We recommend that the conservation plans contain, but not be limited to, the following sections: (1) A discussion of the status of the wolf in the State or on Tribal lands, including population estimates, habitat quantity and quality, and threats to its existence; (2) a discussion of the lawful activities having the potential to incidentally take wolves; such activities may include trapping and hunting programs that target other species; forest management; road construction, maintenance, and use; and recreational activities and development; (3) a discussion of potential impacts to gray wolves from these activities and existing or planned provisions to monitor, minimize, and

mitigate those effects; (4) provisions for identifying and correcting any situations that are likely to be causing incidental take and monitoring the effects of such corrective actions; (5) a discussion of existing or planned conservation measures to promote wolf recovery; and (6) a discussion of measures that may be needed to reduce conflicts with domestic animals and significant effects to wild ungulate populations. The plan must be consistent with the conservation of the gray wolf.

The criteria we will use to evaluate the conservation plans are as follows:

1. Any incidental taking of gray wolves, as described in the plan, occurs unintentionally while conducting an otherwise lawful activity. The purpose of the activity cannot be to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect wolves from the wild. The plan explains why alternatives that would not result in incidental take are not being used.

2. The plan includes a strategy to avoid, minimize, and mitigate any proposed incidental take. Compliance with this standard involves a planning strategy that emphasizes avoidance of impacts to gray wolves and provides measures to minimize potential impacts by modifying practices.

3. The plan is adequately funded and contains provisions to deal with unforeseen circumstances. A summary of the funding that will be available to implement provisions of the plan, including enforcement and monitoring, is provided. The plan outlines how it will be determined that a previously unforeseen problem has arisen and should include the specific steps that will be taken to correct that problem.

4. Any incidental taking allowed pursuant to the plan does not appreciably reduce the likelihood of survival and recovery of wolves in the wild. This criterion is equivalent to the regulatory requirement to avoid causing "jeopardy" under section 7(a)(2) of the Act (*i.e.*, to avoid engaging in any activity that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of the gray wolf). In the case of incidental trapping of wolves, the plan includes an assessment of the potential for gray wolves to be incidentally caught by trappers targeting other species, the likelihood of mortality to a wolf that is trapped and released (including the potential for it to be trapped more than once), and the resulting impact to the wolf population.

5. We are assured that the plan will be implemented. The plan specifies how the State or Tribal governments will

exercise the existing authorities to adhere to the commitments made in the plan. Terms and conditions for implementation and monitoring of the plan are included to ensure that the plan's requirements and the requirements of the Act are met. Any violations could be a basis for revocation of our approval of the plan.

6. We are assured that States and Tribes have involved stakeholders in plan development (*e.g.*, timber companies or associations, trappers associations, recreational interests).

The take prohibitions of section 9 will be in effect throughout the Northeastern DPS until a conservation plan is approved by us. Once a plan is approved by us, the conditions contained in the approved plan will be the conditions, pursuant to section 4(d), under which the intentional and incidental take of gray wolves resulting from activities regulated by the State and Tribal governments included in the conservation plan would not be a violation of section 9.

*Michigan, Wisconsin, North Dakota, and South Dakota Special Regulation*

The current endangered status of wolves in Michigan and Wisconsin restricts depredation control activities in these States to capturing depredating wolves and releasing them at another location in the State. Wolves released in this manner commonly either return to the vicinity of their capture and resume their depredating habits, begin pursuing domestic animals at their new location, or are killed by resident wolf packs in the release area. Thus, in order for translocation to have a reasonable probability of succeeding, there must be unoccupied wolf habitat available within the State, but at a great distance from the depredation incident site.

As the Michigan and Wisconsin wolf populations expand in number and range, the frequency of depredation incidents is increasing, yet there are fewer suitable release sites available. Releases of depredating wolves at marginal locations (that is, near existing wolf packs or too close to their capture site) are likely to fail. For example, a depredating wolf recently released into the Nicolet National Forest in Wisconsin at a location 46 miles from his initial capture had returned to within 23 miles of his capture location when he was mistaken for a coyote and shot only 13 days after his release.

Similar problems with relocating depredating wolves have occurred in northwestern Montana. Of 28 relocated wolves, 25 either died a short time after their release or resumed attacking livestock again and had to be killed.

Only 2 of the 28 relocated wolves survived long enough to reproduce and contribute to wolf recovery. A review of wolf relocation as a means of reducing depredations on livestock in northwestern Montana concluded that relocation should be discontinued and that both livestock losses and depredation control costs could be reduced by killing, instead of relocating, depredating wolves (63 FR 20212, April 23, 1998; Bangs 1998; Bangs *et al.* 1998).

This proposed regulation would allow us, the Michigan and Wisconsin DNRs, the North Dakota Game and Fish Department, the South Dakota Game, Fish and Parks Department, or Tribes within these States, or the designated agents of these agencies to carry out lethal control of depredating wolves. The restrictions for these actions would be similar to those used for the Minnesota wolf depredation control program since 1985: (1) Wolf depredation must be verified, (2) the depredation is likely to be repeated, (3) the taking must occur within one mile of the depredation site in Michigan and Wisconsin, and within 4 miles of the depredation site in North Dakota and South Dakota, (4) taking, wolf handling, and euthanizing must be carried out in a humane manner, which includes the use of steel leghold traps, and (5) any young of the year trapped before August 1 must be released.

Lethal depredation control has been successful in reducing conflicts between the recovering wolf population and domestic animals in Minnesota. It resolves the immediate depredation problem without the removal of excessive numbers of wolves, and avoids removing any wolves when the depredation was not verified as being caused by wolves or is not likely to be repeated. It is significantly less expensive than translocating such problem wolves, and thus is more appropriate for the rapidly expanding wolf populations that exist in Michigan and Wisconsin.

Based upon Minnesota wolf depredation control data from the early 1980s when the wolf population was probably less than 1,500 animals, we estimate that a maximum of about 2 to 3 percent of Wisconsin and Michigan wolves would be taken annually under the provisions of this special regulation. At current population levels this would be about 4 to 6 wolves per State. This level of take should not appreciably affect the wolf population or its continued expansion in either of these States. As their wolf population already exceeds the numerical delisting criterion, this take will have no effect on the recovery of Michigan and Wisconsin

wolves under the Act. The level and effects of this take will be closely monitored by continuing the annual monitoring of wolf populations in these States and the required reporting of the lethal take under this special regulation.

We propose to limit depredation control activities to an area within one mile of the depredation site in Wisconsin and Michigan. Because wolf pack territories are large (in Wisconsin and Michigan they range from 52 to 518 sq km (20 to 200 sq mi), and the locations of Wisconsin and Michigan wolf packs are much more precisely known than is the case for Minnesota wolf packs, it will be possible for depredation control actions to be directed at only the depredating pack. Thus, the one-mile limit will enable depredation control trappers to focus their trapping within the activity areas of the target pack without significant risk of trapping wolves from nearby non-depredating packs.

The situation in North Dakota and South Dakota is quite different from that in Michigan or Wisconsin. Wolves that appear in North Dakota and South Dakota are dispersing individuals from Minnesota and Canada, or rarely may be a pair or small pack along North Dakota's border with Canada. None of our recovery plans or recovery programs recommends actions to promote gray wolf recovery in either of these two States, and we do not believe the Act requires nor encourages such recovery actions. We also recognize that, due to the more open landscape of these States, and the high likelihood that dispersing wolves will encounter livestock, wolves are more likely to become involved in depredations on domestic animals. Therefore, we believe we should provide a mechanism for prompt control of depredating wolves in these States.

Because there are very few or no established wolf packs in these States, and there are very few wolves dispersing into these States, we believe there is minimal risk of trapping or shooting wolves from a nearby non-depredating pack or dispersers not involved in the depredation under the proposed special regulation. For this reason, as well as recognition that the much more open landscape of North Dakota and South Dakota means that depredating wolves are likely to travel a much greater distance from the depredation site to secure cover, we propose to allow lethal depredation control actions to be undertaken up to 4 miles from the depredation site.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or

threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Many of these measures have already been successfully applied to gray wolves in the conterminous States.

If this proposed regulation is finalized, the protections of the Act will continue to apply to the endangered Southwestern (Mexican) Gray Wolf DPS and to the threatened Western Great Lakes, Northeastern, and Western DPSs. The protections of the Act will be removed only from wild gray wolves in areas outside of these four DPSs. We do not believe there are any wild gray wolves in the States outside of the these four DPSs, nor would they be significant to gray wolf recovery, under the Act, if they are found there. This proposal does not modify or withdraw the existing special regulations or the nonessential experimental population designations for the reintroduced gray wolf populations in Idaho, Montana, Wyoming, Arizona, and New Mexico, nor does it make any changes to the threatened classification and existing section 4(d) special regulation for gray wolves in Minnesota. Similarly, the existing critical habitat designations for portions of Minnesota and Michigan will remain unchanged, and will continue to be considered during consultations with other Federal agencies. This proposal does not affect the protection or listing of the red wolf (*Canis rufus*).

To the extent necessary, we will revise our existing gray wolf recovery plans to accommodate the potential changes in geographic coverage, Federal status, and gray wolf protection that would be brought about by new special regulations. Changes to the recovery plan for northern U.S. Rocky Mountain wolves will also be considered in light of the localities chosen by the colonizing wolves and the expansion and anticipated merging of the three recovery populations. We will also consider developing, in partnership with interested agencies and organizations, a Federal recovery plan for the Northeastern DPS.

The protection required of Federal agencies and the prohibitions against taking and harm are discussed in Summary of Factors Affecting the Species, part D, above.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of any species listed as endangered or threatened, or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us. If a Federal action is likely to jeopardize a species proposed to be listed as threatened or endangered or destroy or adversely modify proposed critical habitat, the responsible Federal agency must confer with us.

Federal agency actions that may require consultation or conferencing, as described in the preceding paragraph, include activities by the U.S. Forest Service, the National Park Service, the U.S. Geological Survey, USDA/APHIS-Wildlife Services, the Bureau of Land Management, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency.

However, under section 10(j)(2)(C) of the Act, for those three areas currently designated as nonessential experimental populations in Montana, Idaho, Wyoming, Arizona, New Mexico, and Texas for the purpose of interagency consultation under section 7 of the Act the gray wolf will continue to be considered a species proposed for listing under the Act, except where the species occurs on an area within the National Wildlife Refuge System or the National Park System. For all other purposes of the Act, gray wolves that are currently designated as experimental populations shall continue to be treated as a threatened species. Furthermore, the existing special regulations found in 50 CFR 17.84(i) and 17.84(k) regarding the taking of wolves depredating on livestock in these experimental population areas will continue to apply as long as these experimental population designations remain in force.

The Act and implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered and threatened wildlife. The prohibitions codified at 50 CFR 17.21 and 17.31 in part make it illegal for any person subject to the jurisdiction of the United States to take (including harass, harm, pursue, hunt, shoot,

wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce, any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies. Additionally, as discussed above, special regulations promulgated under sections 4(d) and 10(j) of the Act provide additional exceptions to these general prohibitions for the gray wolf.

The proposed 4(d) rule for gray wolves in the northeastern DPS will have no immediate effect on current conservation measures in place for any naturally occurring or recolonizing gray wolves. It is the intent of the 4(d) rule to provide regulatory flexibility so that there will be fewer obstacles for States and Tribes to assume an active role in wolf restoration. As a threatened species with a 4(d) rule, States and Tribes can undertake wolf restoration without nullifying the authority to manage introduced "problem" wolves in a manner consistent with other wildlife population objectives. As stated earlier in the section *Northeastern Gray Wolves*, if future wolf reintroductions occur in the Northeast, and conditions allowing incidental or intentional take pursuant to the 4(d) rule are met, it will not be possible in every instance to distinguish naturally occurring wolves from the unmarked progeny of reintroduced wolves. Therefore, in the event that one or more States or Tribes actively reintroduce wolves into the Northeast, some incidental or intentional take of naturally occurring wolves may occur in the future.

It is our policy (59 FR 34272; July 1, 1994) to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. Activities that we believe could potentially harm or kill the gray wolf in the area where it will remain listed as threatened or endangered and may result in take include, but are not limited to:

(1) Taking of gray wolves by any means or manner not authorized under the provisions of the existing special regulation established for the designated nonessential experimental population in Arizona, New Mexico, and Texas as long as that designation and special regulation remain in effect;

(2) Taking of gray wolves within the Western Gray Wolf DPS or in the Northeastern DPS in a manner not authorized under the provisions of the 4(d) special regulations proposed in this document, or in a manner not authorized under the existing experimental population regulations which would continue to apply to gray wolves in Wyoming and in parts of Idaho and Montana;

(3) Taking of gray wolves within the Western Great Lakes DPS in a manner not authorized in either the existing section 4(d) special regulation for Minnesota or the proposed section 4(d) special regulation for Michigan, Wisconsin, North Dakota, and South Dakota;

(4) Taking of captive members of the Southwestern (Mexican) DPS unless such taking results from implementation of husbandry protocols approved under the Mexican Wolf Species Survival Plan or are otherwise approved or permitted by the Service;

(5) Intentional killing of a live-trapped canid that is demonstrably too large to be a coyote (that is, greater than 27 kg (60 lb)) in the Northeastern Gray Wolf DPS; or

(6) Killing or injuring of, or engaging in the interstate commerce of, captive wolves which originated from, or whose ancestors originated from, the areas included within the Western Great Lakes, Western, Northeastern, or Southwestern (Mexican) Gray Wolf DPSs, unless authorized in a Service permit.

We believe, based on the best available information, that the following actions will not result in a violation of section 9:

(1) Taking of a gray wolf in defense of human life;

(2) Taking of gray wolves outside of the areas described as the Western, Western Great Lakes, Northeastern, or Southwestern (Mexican) Gray Wolf DPS;

(3) Taking of gray wolves under the provisions of the existing special regulations established for the three designated nonessential experimental populations in Arizona, New Mexico, Texas, Wyoming, Idaho, and Montana as long as those designations and special regulations remain in effect;

(4) Taking of gray wolves under the provisions of the special regulations under section 4(d) of the Act, as proposed at this time for threatened gray wolves in the Northeastern Gray Wolf DPS, the Western Gray Wolf DPS, or the Western Great Lakes Gray Wolf DPS States of Michigan, Wisconsin, North Dakota, and South Dakota;

(5) Taking of gray wolves under the provisions of the existing special

regulation at 50 CFR § 17.40(d) for Minnesota wolves; or

(6) Taking of captive members of the Southwestern (Mexican) Gray Wolf DPS in accordance with husbandry protocols approved under the Mexican Wolf Species Survival Plan or other approvals or permits issued by the Service.

Permits may be issued to carry out otherwise prohibited activities involving endangered and threatened wildlife under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. For endangered species such permits are available for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, and/or for economic hardship. For threatened species such permits are also available for zoological exhibition, educational purposes, and/or for special purposes consistent with the purposes of the Act, but not for economic hardship.

Questions regarding whether specific activities may constitute a violation of section 9 should be directed to the nearest regional or Ecological Services field office of the Service. Requests for copies of the regulations regarding listed species and inquiries about prohibitions and permits may be addressed to any Service regional office or to the Washington headquarters office. The location, address, and phone number of the nearest regional or Ecological Services/Endangered Species field office may be obtained by calling us at 703-358-2171 or by using our World Wide Web site at: <http://www.fws.gov/where/index.html>.

#### Required Determinations

*Regulatory Planning and Review, Regulatory Flexibility Act, and Small Business Regulatory Enforcement Fairness Act*

This proposed rule was subject to Office of Management and Budget review under Executive Order 12866. An economic analysis is not required because this proposed regulation will result in only minor (positive) effects on the very small percentage of livestock producers within wolf range.

Currently the vast majority of wolves that occur in the western Great Lakes area are found in the State of Minnesota where they are listed as threatened. A special regulation exists for Minnesota wolves that allows the Fish and Wildlife Service, the Minnesota DNR, other designated agencies, and their agents to manage wolves to ensure minimal economic impact. These special regulations allow some direct "take" of

wolves. A State program compensates livestock producers up to \$750 per head if they suffer confirmed livestock losses by wolves. The value of the confirmed livestock losses amounted to an annual average of about \$53,000 over the last five years. Because this proposal will not affect the existing special regulations for Minnesota wolves, there will be no economic effect on livestock producers or other economic activities in Minnesota.

This proposed regulation will reclassify wolves in Michigan and Wisconsin from endangered to threatened and provide special regulations similar to those for Minnesota as described above. Thus specified State, Tribal, and Federal agencies and their designated agents will be allowed to take wolves in certain circumstances without a permit. Under normal protections of the Act, that is, without the benefit of special regulations proposed for Michigan and Wisconsin, permits would be required. This proposed special regulations will benefit the small percentage of livestock producers in wolf range in Michigan and Wisconsin that experience wolf attacks on their animals. Since only about 1.2 percent of livestock producers in nearby Minnesota, where the wolf population is much greater (Minnesota contains 2500 wolves, while Michigan and Wisconsin have 197 and 174 wolves, respectively), are adversely affected by wolves, the potential beneficial effect to livestock producers in Michigan and Wisconsin is small, but it may be significant to a few producers. In addition, State programs in Michigan and Wisconsin compensates livestock producers if they suffer confirmed livestock losses by wolves. In Wisconsin compensation is at full market value, while Michigan provides partial compensation and is planning on offering full compensation soon. The net effect of the proposed reclassification and 4(d) rule to livestock producers in Michigan and Wisconsin is the control of depredating wolves will become more efficient and effective, thus reducing the economic burden of livestock producers resulting from wolf recovery in those states. Similar positive, but geographically scattered and minor economic benefits will occur for livestock producers in North and South Dakota.

The majority of wolves in the West are protected under nonessential experimental population designations that cover Wyoming, most of Idaho, and southern Montana that effectively treat wolves as threatened species. A smaller, but naturally-occurring population of about 80 wolves is found in

northwestern Montana. The wolves with the nonessential experimental population designation were reintroduced into these States from Canada. Special regulations exist for these experimental populations that allow government employees and designated agents, as well as livestock producers, to take problem wolves. Because this proposal does not change the nonessential experimental designation or associated special regulations, it will have no economic impact on livestock producers or other entities in these areas. However, the naturally occurring wolves in northwestern Montana (outside of the nonessential experimental population areas) and wolves that may occur in other Western States are proposed for reclassification to threatened. Under normal protections of the Act, that is, without the benefit of special regulations proposed for the Western States not included in the nonessential experimental designation, permits would be required for nearly all forms of take. For example, currently a private landowner on his or her own land in northwestern Montana could not take a wolf in the act of attacking a domestic animal. This proposed rule would allow such take without a permit. The proposed reduction of the restrictions on taking problem wolves will make their control easier and more effective, thus, reducing the economic losses that result from wolf depredation on livestock and other domestic animals. Furthermore, a private program compensates livestock producers if they suffer confirmed livestock losses by wolves. Average compensation for livestock losses has been slightly over \$7,000 per year. The potential effect on livestock producers in Western States outside of the experimental population is small, but could be entirely beneficial to their operation.

We propose delisting the gray wolf in a large number of states outside of the four distinct population segments identified in the proposed rule. We are proposing these areas for delisting because we believe wolf recovery in these areas is not feasible or is not necessary in order to carry out our responsibilities under the ESA. These areas currently contain no wolves and are not likely to contain wolves in the future given the modification of the habitat by humans. Current regulations that protect wolves are unnecessary and currently provide no protection to wolves. Livestock producers and other economic activities in these States have not been affected by the wolf and will not be affected by the actions in this

proposal because we are simply proposing to remove the current regulations which have no effect on landowners.

a. This proposed regulation would not have an annual economic effect of \$100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. As explained above, this proposed regulation will result in only minor positive economic effects for a very small percentage of livestock producers.

b. If finalized, this proposed regulation would not create inconsistencies with other agencies' actions. This proposed regulation reflects continuing success in recovering the gray wolf through long-standing cooperative and complementary programs by a number of federal, state, and tribal agencies.

c. This proposed regulation would not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

d. This proposed regulation would not raise novel legal or policy issues. This proposed regulation is consistent with the ESA, regulations, and policy.

This proposed regulation would not have a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). As stated above, this proposed regulation will result in only minor positive economic effects for a very small percentage of livestock producers. Only 1.2 percent of the livestock producers are affected in Minnesota and fewer are expected to be effected in the other States.

This proposed regulation would not be a major rule under 5 U.S.C. 801 *et seq.*, the Small Business Regulatory Enforcement Fairness Act.

a. This proposed regulation would not produce an annual economic effect of \$100 million. The majority of livestock producers within the range of the wolf are small family-owned dairies or ranches and the total number of livestock producers that may be affected by wolves is small. (For example, only about 1.2 percent of livestock producers in Minnesota are affected by wolves where the largest wolf population, by far, exists.) The proposed take regulations that are proposed further reduce the effect that wolves will have on individual livestock producers by reducing or eliminating permit requirements. Compensation programs are also in place to offset losses to individual livestock producers. Thus, even if livestock producers affected are small businesses, their combined economic effects will be minimal and

the effects are a benefit to small business by reducing or eliminating paperwork requirements.

b. This proposed regulation would not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

c. This proposed regulation would not have a significant adverse effect on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

#### *Unfunded Mandates Reform Act*

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

a. The Service has determined and certifies pursuant to the Unfunded Mandates Reform Act, 2 U.S.C. 1502 *et seq.*, that this proposed rulemaking will not impose a cost of \$100 million or more in any given year on local or State governments or private entities. As stated above, this proposed regulation will result in only minor positive economic effects for a very small percentage of livestock producers.

b. This proposed regulation would not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act. This proposed regulation will not impose any additional wolf management or protection requirements on the States or other entities.

#### *Takings Implications Assessment*

In accordance with Executive Order 12630, this proposed regulation would not have significant implications concerning taking of private property by the Federal government. This proposed regulation will reduce regulatory restrictions on private lands and, as stated above, will result in minor positive economic effects for a small percentage of livestock producers.

#### *Federalism Assessment*

In accordance with Executive Order 13132, this proposed regulation would not have significant Federalism effects. This proposed regulation would not have a substantial direct effect 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.

#### *Civil Justice Reform*

In accordance with Executive Order 12988, this proposed regulation does not unduly burden the judicial system.

#### *Paperwork Reduction Act*

This proposed regulation does not contain any new collections of information other than those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018-0094.

#### *National Environmental Policy Act*

We have analyzed this proposed rulemaking in accordance with the criteria of the National Environmental Policy Act and 318 DM 2.2(g) and 6.3(D). We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. A notice outlining our reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

#### *Section 7 Consultation*

We do not need to complete a section 7 consultation on this proposed rulemaking. An intra-Service consultation is completed prior to the implementation of recovery or permitting actions for listed species; however, the acts of listing, delisting, or reclassifying species under the ESA are not subject to the requirements of section 7 of the ESA.

#### **Public Comments Solicited**

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we solicit data, comments, or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning the actions contained in this proposal. Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by law. In some circumstances, we will withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish for us to withhold your name and/or address, you must state this request prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, available for public inspection in their entirety (see

**ADDRESSES** section). Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat, or lack thereof, to gray wolves in the 48 conterminous States and Mexico;

(2) Additional information concerning the range, distribution, population size, and population trends of gray wolves in the conterminous 48 States and Mexico;

(3) Information concerning the adequacy of the reclassification and recovery criteria described in the 1992 Recovery Plan for the Eastern Timber Wolf, the 1987 Northern Rocky Mountain Wolf Recovery Plan, and the 1982 Mexican Wolf Recovery Plan;

(4) The extent of State and Tribal protection and management that would be provided to the gray wolf in the western Great Lakes area as either a threatened or a delisted species;

(5) Information concerning the potential for recovery of gray wolves in the northeastern United States, and the potential involvement of the Service in such recovery activities;

(6) Information concerning approaches to controlling wolf depredation on domestic animals and significant impacts to wild ungulate populations in States where the wolf may be reclassified to a threatened species, including the use of section 4(d) special regulations to allow lethal depredation control and additional opportunities for harassment of wolves by livestock producers;

(7) Comments and information regarding the merits of alternatives described in this proposal that were not selected, including the alternative of removing the two existing nonessential experimental population designations for the northern U.S. Rocky Mountains; and

(8) Information concerning other alternative approaches to changing the listing status of the gray wolf to reflect recovery progress and recovery needs, including alternatives not discussed in this proposal.

(9) Appropriateness of authorizing take in the Northeastern DPS in accordance with an approved State or Tribal Conservation Plan.

**References Cited**

A complete list of all references cited in this proposal is available upon request from the U.S. Fish and Wildlife Service Region 3 Office at Ft. Snelling, Minnesota (see **FOR FURTHER INFORMATION** section).

**Author**

The primary author of this notice is Ronald L. Refsnider, U.S. Fish and Wildlife Service, Ft. Snelling, Minnesota Regional Office (see **ADDRESSES** section). Substantial contributions were also made by Service employees Michael Amaral (Concord, New Hampshire), Ed Bangs (Helena, Montana), John Fay (Arlington, Virginia), Scott Johnston (Washington, D.C.), Paul Nickerson (Hadley,

Massachusetts), and David Parsons (Albuquerque, New Mexico).

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

Endangered and threatened species, Exports, Imports, Reporting and record keeping requirements, Transportation.

**Regulation Promulgation**

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

**PART 17—[AMENDED]**

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

**Authority:** 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.11(h) is amended by removing the first two entries for the gray wolf (*Canis lupus*) under MAMMALS in the list of Endangered and Threatened Wildlife and adding in their place the following three entries, while retaining the current final two entries for the gray wolf, which designate nonessential experimental populations in Wyoming, Idaho, Montana, Arizona, New Mexico, and Texas:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
Mammals							
*	*	*	*	*	*		*
Wolf, gray .....	<i>Canis lupus</i> .....	Holarctic .....	U.S.A. (AZ south of the Colorado and Little Colorado Rivers between Hoover Dam and Winslow and south of Interstate Highway 40 between Winslow and the eastern State boundary, NM south of Interstate Highway 40, TX south of Interstate Highway 40 and west of Interstate Highway 35), Mexico, except where listed as an experimental population; captive wolves who were, or whose ancestors were, removed from the wild in this area.	E	1, 6, 13, 15, 35, 631, ____	NA	NA.
Do .....	do .....	do .....	U.S.A. (MI, MN, ND, SD, WI); captive wolves who were, or whose ancestors were, removed from the wild in this area.	T	1, 6, 13, 15, 35, ____	17.95(a)	17.40(d), 17.40(n).
Do .....	do .....	do .....	U.S.A. (ME, NH, NY, VT); captive wolves who were, or whose ancestors were, removed from the wild in this area.	T	1, 6, 13, 15, 35, ____	NA	17.40(m).

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Do .....	do .....	do .....	U.S.A. (CO, ID, MT, OR, UT, WA, WY, AZ north of the Colorado and Little Colorado Rivers between Hoover Dam and Winslow and north of Interstate Highway 40 between Winslow and the eastern State boundary, and NM north of Interstate Highway 40), except where listed as an experimental population; captive wolves who were, or whose ancestors were, removed from the wild in this area.	T	1, 6, 13, 15, 35, 561, 562,___	NA	17.40(l).
*	*	*	*	*	*	*	*

3. The Service amends § 17.40 by adding new paragraphs (m), (n), and (o) to read as follows:

**§ 17.40 Special rules—mammals**

\* \* \* \* \*

(m) Gray wolf (*Canis lupus*) Western Distinct Population Segment (DPS). The gray wolf Western DPS occurs in the States of Washington, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, and the parts of Arizona and New Mexico north of the Colorado River and the Little Colorado River between Hoover Dam and Winslow (Arizona) and north of Interstate Highway 40 between Winslow and the eastern boundary of New Mexico, except where listed as an experimental population.

(1) *Does this Special rule apply to the experimental populations located in the Western DPS?* No. Paragraphs (m)(2) through (6) of this section apply to gray wolves within the Western Gray Wolf Distinct Population Segment, but excludes those wolves occurring in areas that are designated as experimental populations in Idaho, Montana, and Wyoming under section 10(j) of the Endangered Species Act of 1973, as amended.

(2) *What are the definitions of terms used in this paragraph (m)?*

(i) *Active den site.* A den or a specific aboveground site that is being used on a daily basis by wolves to raise newborn pups during the period April 1 to June 30.

(ii) *Breeding pair.* An adult male and an adult female wolf that, during the previous breeding season, have produced at least two pups that survived until December 31 of the year of their birth.

(iii) *Domestic animals.* Animals that have been tamed for use by humans, including use as pets.

(iv) *Livestock.* Cattle, sheep, horses, and mules or as otherwise defined in

State and Tribal wolf management plans as approved by the Service.

(v) *Noninjurious.* Does not cause either temporary or permanent physical damage or death.

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

(vii) *Problem wolves.* Wolves that attack livestock, or wolves that twice in a calendar year attack domestic animals other than livestock.

(viii) *Public land.* Federal land and any other public land designated in State and Tribal wolf management plans as approved by the Service.

(ix) *Remove.* Place in captivity or kill.

(x) *Service (we).* The Fish and Wildlife Service of the Department of the Interior.

(xi) *Take (taking).* To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

(xii) *Wounded.* Torn flesh and bleeding or evidence of physical damage caused by a wolf bite.

(3) *What forms of take of gray wolves are allowed in the Western DPS?* The following activities, in certain circumstances as described below, are allowed: Opportunistic harassment; intentional harassment; taking on private land; taking on public land; taking in response to impacts on wild ungulates; taking in defense of human life; taking to protect human safety; taking to remove problem wolves; incidental take; taking under permits; and taking authorizations for agency employees. Other than as expressly allowed in the rule, all the prohibitions of 50 CFR 17.31(a) and (b) apply to gray wolves in this DPS, and all other activities are considered a violation of section 9 of the Act. Any wolf, or wolf part, taken legally must be turned over to the Service. Any taking of wolves

must be reported to the Service as outlined in paragraph (m)(6) of this section.

(i) *Opportunistic harassment.* Landowners on their own land and livestock producers or permittees who are legally using public land under valid livestock grazing allotments may conduct opportunistic harassment of any gray wolf in a noninjurious manner at any time. Opportunistic harassment must be reported to us within 7 days.

(ii) *Intentional harassment.* After we or our designated agent have confirmed persistent wolf activity on privately owned land, we may, pursuant to section 10(a)(1)(A) of the Act, issue a 90-day permit, with appropriate conditions, to any landowner to harass wolves in a potentially injurious manner (such as by projectiles designed to be nonlethal to larger mammals). The harassment must occur as specifically identified in the Service permit.

(iii) *Taking on private land.* We allow landowners to take wolves on privately owned land in two circumstances:

(A) Any landowner may take a gray wolf that is in the act of biting, wounding, or killing any domestic animal, provided that the domestic animal(s) freshly (less than 24 hours) wounded or killed by wolves are evident, and we or our designated agent are able to confirm that the domestic animal(s) were wounded or killed by wolves. The taking of any wolf without such evidence may be referred to the appropriate authorities for prosecution.

(B) A private landowner who has a permit issued by the Service pursuant to section 10(a)(1)(A) of the Act may take a gray wolf on their private land if:

(1) Ten or more breeding pairs of gray wolves are present in that State where the permit is to be used, and

(2) We or our designated agent have determined that wolves are routinely present on that private property and

present a significant risk to the health and safety of domestic animals. The landowner must conduct the take in compliance with the permit issued by the Service.

(iv) *Take on public land.* Under the authority of section 10(a)(1)(A) of the Act, we may issue permits to take gray wolves under certain circumstances to livestock producers or permittees who are legally using public land under valid livestock grazing allotments. The permits, which may be valid for up to 45 days, can allow the take of a gray wolf that is in the act of killing, wounding, or biting livestock, livestock guard and herding animals, or other domestic animals, provided that we or our designated agent have confirmed that wolves have previously wounded or killed livestock and agency efforts to resolve the problem have been completed. We or our designated agent will investigate and determine if the previously wounded or killed livestock were wounded or killed by wolves. There must be evidence of livestock freshly wounded or killed by wolves. The taking of any wolf without such evidence may be referred to the appropriate authorities for prosecution.

(v) *Take in response to wild ungulate impacts.* If wolves are causing unacceptable impacts to wild ungulate populations, a State or Tribe may capture and translocate wolves to other areas within the Western DPS. In their State or Tribal wolf management plans, the States or Tribes will define such unacceptable impacts, describe how they will be measured, and identify possible mitigation measures. Before wolves can be captured and translocated, we must approve these plans and determine that such translocations will not inhibit wolf population growth toward recovery levels. In addition, if, after 10 or more breeding pairs are established in a State, we determine that wolves are causing unacceptable impacts to wild ungulate populations, we may, in cooperation with the appropriate State fish and game agencies or Tribes, relocate wolves to other States within the Western DPS.

(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.* We or a Federal land management agency or a State or Tribal conservation agency may promptly remove any wolf that we or our designated agent determines to present a threat to human life or safety.

(viii) *Take of problem wolves.* We or our designated agent may carry out aversive conditioning, nonlethal control, translocation, permanent placement in captivity, or lethal control of problem wolves. If nonlethal depredation control activities occurring on Federal lands or other public lands identified in State or Tribal wolf management plans result in the capture, prior to October 1, of a female wolf showing signs that she is still raising pups of the year (*e.g.*, evidence of lactation, recent sightings with pups), whether or not she is captured with her pups, then she and her pups will be released at or near the site of capture. All problem wolves on private land, including female wolves with pups, may be removed if continued depredation occurs. All chronic problem wolves (wolves that repeatedly depredate on domestic animals including female wolves with pups regardless of whether on public or private lands) will be removed from the wild (killed or placed in captivity). To determine the status of problem wolves, we must have the following:

(A) Evidence of wounded livestock or remains of a livestock carcass that clearly shows that the injury or death was caused by wolves (such evidence is essential because wolves feed on carrion that they find and did not kill);

(B) Reason to believe that additional livestock losses would occur if no control action is taken;

(C) No evidence of attractants or artificial or intentional feeding of wolves; and

(D) Evidence that, on public lands, animal husbandry practices previously identified in existing approved allotment plans and annual operating plans for allotments were followed.

(ix) *Incidental take.* We will allow certain incidental take of gray wolves in the Western DPS if the take was accidental and incidental to an otherwise lawful activity. Take that does not conform with the provisions above may be referred 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.

(x) *Take under permits.* Any person with a valid permit issued by the Service under 50 CFR 17.32 may take wolves in the wild in the Western DPS, pursuant to terms of the permit.

(xi) *Additional taking authorizations for agency employees.* When acting in the course of official duties, any employee or agent of the Service or

appropriate Federal, State, or Tribal agency, who is designated in writing for such purposes by the Service, may take a wolf if such action is for:

(A) Scientific purposes;

(B) To avoid conflict with human activities;

(C) To improve wolf survival and recovery prospects;

(D) To aid or euthanize sick, injured, or orphaned wolves;

(E) To salvage a dead specimen that may be used for scientific study;

(F) To aid in law enforcement investigations involving wolves; or

(G) To prevent wolves with abnormal physical or behavioral characteristics, as determined by the Service, from passing on those traits to other wolves.

Any additional taking authorizations for agency employees identified in this subparagraph must be reported to us within 15 calendar days.

(4) *What types of take of gray wolves are not allowed in the Western DPS?*

(i) Any manner of take not described under paragraph (m) (3) of this section.

(ii) No person may possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever, any wolf or wolf part from the State of origin taken in violation of the regulations in this paragraph (m) or in violation of applicable State or Tribal fish and wildlife laws or regulations or the Act.

(iii) In addition to the offenses defined in this paragraph (m), we consider any attempts to commit, solicitations of another to commit, or actions that cause to be committed any such offenses to be unlawful.

(iv) *Use of unlawfully taken wolves.*

No person, except for an authorized person, may possess, deliver, carry, transport, or ship a gray wolf taken unlawfully in the Western DPS.

(5) *How does the gray wolf Western DPS affect use of Federal lands.*

Restrictions on the use of any Federal lands within the Western DPS may be put in place to prevent the direct take of wolves at active den sites between April 1 and June 30. Otherwise, no additional land-use restrictions on Federal lands, except for national parks or national wildlife refuges, may be employed to reduce or prevent take of wolves solely to benefit gray wolf recovery under the Act. This prohibition does not preclude restricting land use when necessary to reduce negative impacts of wolf restoration efforts on other endangered or threatened species.

(6) *What are the reporting requirements when a gray wolf is taken?* Except when otherwise indicated in this paragraph (m), or when a permit issued under 50 CFR 17.32 specifies otherwise, any taking must be reported to us within

24 hours. We will allow additional reasonable time if access is limited. Report wolf takings or opportunistic harassment to Fish and Wildlife Service, Western Gray Wolf Recovery Coordinator, 100 N. Park, #320, Helena, MT 59601; 406-449-5225; facsimile 406-449-5339, or a Service-designated representative of another Federal, State, or Tribal agency. 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.

(n) Gray wolf (*Canis lupus*)

Northeastern Distinct Population Segment (DPS). The gray wolf Northeastern DPS occurs in New York, Vermont, New Hampshire, and Maine.

(1) *What are the definitions of terms used in paragraph (n)?*

(i) *Domestic animals.* Animals that have been tamed for use by humans, including use as pets.

(ii) *Livestock.* Cattle, sheep, horses, and mules or as otherwise defined in State and Tribal wolf management plans as approved by the Service.

(iii) *Service (we).* The Fish and Wildlife Service of the Department of the Interior.

(iv) *Take (taking).* To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

(2) *What forms of take of gray wolf are allowed in the Northeastern DPS?* The following activities, in certain circumstances as described below, are allowed: take in defense of human life, take to protect human safety, take under permits, take for conservation purposes, and incidental take. Other than as expressly allowed in this rule, all the prohibitions of 50 CFR 17.31(a) apply to gray wolves in this DPS, and all other activities are considered a violation of section 9 of the Act. Any wolf, or wolf part, taken legally must be turned over to the Service. Any taking of wolves must be reported to the Service as outlined in paragraph (n)(6) of this section.

(i) *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.

(ii) *Take to protect human safety.* We or a Federal land management agency or a State or Tribal conservation agency may promptly remove any wolf that we or our designated agent determines to present a threat to human life or safety.

(iii) *Take under permits.* Any person with a valid permit issued by the Service under 50 CFR section 17.32 may take wolves in the wild in the

Northeastern DPS, pursuant to terms of the permit.

(iv) *Take for conservation purposes.*

(A) When acting in the course of official duties, any authorized Service employee or agent, as described in § 17.31(b), or State conservation agency who is designated by his/her agency for such purposes under a Cooperative Agreement under section 6 of the Act, may take a gray wolf in his/her respective State to carry out scientific research or conservation programs.

(B) Federally recognized Tribes or States that have an approved gray wolf conservation plan as described below in paragraph (n)(3) of this section may take gray wolf in accordance with that plan.

(v) *Incidental Take.* Take that is incidental to an otherwise lawful activity included in an approved State or Tribal gray wolf conservation plan in accordance with (n)(3) of this section is not unlawful.

(3) *What are the elements that may comprise an approved State or Tribal gray wolf conservation plan?* We will review these plans, make them available for public comment, and approve them if the plans promote the conservation of the gray wolf. Elements that may be included in the conservation plan are listed below.

(i) A discussion of the status of the wolf in the State or on Tribal lands, including population estimates, habitat quantity and quality, and threats to its existence.

(ii) A discussion of existing or planned conservation measures to promote wolf recovery.

(iii) A discussion of the lawful activities having the potential to incidentally take wolves.

(iv) A discussion of potential impacts to gray wolves from these activities and existing or planned provisions to monitor, minimize, and mitigate those effects.

(v) Provisions for identifying and correcting any situations that are likely to be causing incidental take and monitoring the effects of such corrective actions.

(vi) A discussion of measures that may be needed to reduce conflicts with domestic animals and significant effects to wild ungulate populations.

(vii) Conservation plans that include provisions for lethal control of wolves depredating on livestock or domestic animals will not include provisions for euthanizing wolf pups less than 6 months of age.

(viii) A conservation plan may contain provisions for control activities to include capturing, relocating, or euthanizing wolves that threaten

ungulate populations of management concern if the control activities:

(A) Do not begin until at least 5 years after wolf reintroduction is completed;

(B) Occur only after the State or Tribal natural resources agency has informed the Service of the need for such activities and the extent of control that will be implemented; and

(C) Will not reduce any wolf pack by more than 30 percent and more frequently than every 3 years.

(ix) A conservation plan may contain provisions for capture and lethal control of diseased wolves (e.g., carriers of rabies or canine parvovirus) determined to be a potential threat to other wolves, domestic animals, or humans.

(4) *What are the criteria that will be used to evaluate the conservation plans?*

(i) Any incidental taking of gray wolves, as described in the plan, occurs unintentionally while conducting an otherwise lawful activity. The purpose of the activity cannot be to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect wolves from the wild. The plan explains why alternatives that would not result in incidental take are not being used.

(ii) The plan includes a strategy to avoid, minimize, and mitigate any proposed incidental take. Compliance with this standard involves a planning strategy that emphasizes avoidance of impacts to gray wolves and provides measures to minimize potential impacts by modifying practices.

(iii) The plan is adequately funded and contains provisions to deal with unforeseen circumstances. A summary of the funding that will be available to implement provisions of the plan, including enforcement and monitoring, is provided. The plan outlines how it will be determined that a previously unforeseen problem has arisen and should include the specific steps that will be taken to correct that problem.

(iv) Any incidental taking allowed pursuant to the plan does not appreciably reduce the likelihood of survival and recovery of wolves in the wild. This criterion is equivalent to the regulatory requirement to avoid causing "jeopardy" under section 7(a)(2) of the Act (i.e., to avoid engaging in any activity that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of the gray wolf). In the case of incidental trapping of wolves, the plan includes an assessment of the potential for gray wolves to be incidentally caught by trappers targeting other species, the likelihood of mortality to a wolf that is trapped and released (including the potential for it to be trapped more than

once), and the resulting impact to the wolf population.

(v) We are assured that the plan will be implemented. The plan specifies how the State or Tribal governments will exercise the existing authorities to adhere to the commitments made in the plan. Terms and conditions for implementation and monitoring of the plan are included to ensure that the plan's requirements and the requirements of the Act are met. Any violations could be a basis for revocation of our approval of the plan.

(vi) We are assured that States and Tribes have involved stakeholders in plan development (e.g., timber companies or associations, trappers associations, recreational interests, conservation organizations).

(5) *How will the conservation plans be reviewed?* We will annually review the conservation plans with the States and Tribes to measure progress, identify problems, and recommend corrective action. If we determine that a plan is not being effectively implemented, we will present our concerns to the State or Tribe for joint determination of an appropriate resolution. If the State or Tribe does not take the agreed-upon corrective action within 90 days, we may partially or completely revoke approval of the plan. We will publish notice of our decision to revoke our approval and our reasons for doing so in the **Federal Register**, providing a 30-day public comment period prior to revocation. If we decide to revoke our approval, the take prohibitions that had been removed through approval of the conservation plan will be reinstated.

(6) *What types of take of gray wolves are not allowed in the Northeastern DPS?*

(i) Any manner of take not described under paragraph (n)(2) of this section.

(ii) *Export and commercial transactions.* Except as may be authorized by a permit issued under 50 CFR 17.32, no person may possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever, any wolf or wolf part from the State of origin taken in violation of the regulations in this paragraph (n) or in violation of applicable State or Tribal fish and wildlife laws or regulations or the Act.

(iii) In addition to the offenses defined in this paragraph (n), we consider any attempts to commit, solicitations of another to commit, or actions that cause to be committed any such offenses to be unlawful.

(iv) *Use of unlawfully taken wolves.* No person, except for an authorized person, may possess, deliver, carry, transport, or ship a gray wolf taken unlawfully in the Northeastern DPS.

(7) *What are the reporting requirements when a gray wolf is taken?*

Except when otherwise indicated in this paragraph (n), or when a permit issued under 50 CFR 17.32 specifies otherwise, any taking must be reported to us within 24 hours. We will allow additional reasonable time if access is limited. Report wolf takings to Fish and Wildlife Service, Chief, Endangered Species, 300 Westgate Center Drive, Hadley, MA; 413-253-8657. 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.

(o) Gray wolf (*Canis lupus*) in Michigan, Wisconsin, North Dakota, and South Dakota.

(1) *What are the definitions of terms used in paragraph (o)?*

(i) *Domestic animals.* Animals that have been tamed for use by humans, including use as pets.

(ii) *Livestock.* Cattle, sheep, horses, and mules or as otherwise defined in State and Tribal wolf management plans as approved by the Service.

(iii) *Service (we).* The Fish and Wildlife Service of the Department of the Interior.

(iv) *Take (taking).* To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

(2) *What forms of take of gray wolves are allowed in Michigan, Wisconsin, North Dakota, and South Dakota?* The following activities, in certain circumstances as described below, are allowed: Take in defense of human life; take to protect human safety; take to aid, salvage, or dispose; take for depredation control; take under cooperative agreements; and take under permit. Other than as expressly allowed in this rule, all the prohibitions of 50 CFR 17.31(a) apply to gray wolves in this DPS, and all other activities are considered a violation of section 9 of the Act. Any wolf, or wolf part, taken legally must be turned over to the Service. Any taking of wolves must be reported to the Service as outlined in paragraph (o)(4) of this section.

(i) *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.

(ii) *Take to protect human safety.* We or a Federal land management agency or a State or Tribal conservation agency may promptly remove any wolf that we or our designated agent determines to present a threat to human life or safety.

(iii) *Allowable take for Aiding, Salvaging, or Disposing of Specimens.*

When acting in the course of official duties, any authorized employee or agent of the Service; any other Federal land management agency; the Michigan Department of Natural Resources; the Wisconsin Department of Natural Resources; the North Dakota Game and Fish Department; the South Dakota Game, Fish and Parks Department; or a federally recognized American Indian Tribe, who is designated by his/her agency for such purposes, may take a gray wolf in Michigan, Wisconsin, North Dakota, and South Dakota without a Federal permit if such action is necessary to:

(A) Aid a sick, injured, or orphaned specimen;

(B) Dispose of a dead specimen; or

(C) Salvage a dead specimen that may be useful for scientific study or for traditional, cultural, or spiritual purposes by Indian Tribes. Any taking to aid, salvage, or dispose of a specimen must reported to a Law Enforcement Office of the Service within 15 calendar days. The specimen may be retained, disposed of, or salvaged only in accordance with directions from the Service.

(iv) *Allowable take for Depredation Control.* When acting in the course of official duties, any authorized employee or agent of the Service; the Michigan Department of Natural Resources; the Wisconsin Department of Natural Resources; the North Dakota Game and Fish Department; the South Dakota Game, Fish and Parks Department; or a federally recognized American Indian Tribe, who is designated by his/her agency for such purposes, may take a gray wolf or wolves within the person's State or Reservation boundaries, in response to depredation by a gray wolf on lawfully present livestock or domestic animals. However, such taking must be preceded by a determination by one of the agencies listed above in this subparagraph that the depredation was likely to have been caused by a gray wolf and depredation at the site is likely to continue in the absence of a taking. In addition, such taking must be performed in a humane manner and occur within 1 mile of the place where the depredation occurred if in Michigan or Wisconsin and within 4 miles of the place where the depredation occurred if in North Dakota or South Dakota. Any young of the year taken by trapping on or before August 1 of that year must be released. Any take for depredation control must reported to a Law Enforcement Office of the Service within 15 calendar days. The specimen may be retained, disposed of, or salvaged only in accordance with directions from the Service.

(v) *Take Under Section 6 Cooperative Agreements.* When acting in the course of official duties, any authorized employee or agent of the Michigan Department of Natural Resources; the Wisconsin Department of Natural Resources; the North Dakota Game and Fish Department; or the South Dakota Game, Fish and Parks Department, as described in section 17.31(b), who is designated by his/her agency for such purposes under a Cooperative Agreement under section 6 of the Act, may take a gray wolf in his/her respective State to carry out scientific research or conservation programs. Such takings must be reported to the Service as specified in the reporting provisions of the Cooperative Agreement.

(vi) *Take under permit.* Any person who has a permit under section 50 CFR 17.32 of this subpart may carry out activities as specified by the permit with regard to gray wolves in Michigan,

North Dakota, South Dakota, and Wisconsin.

(3) *What types of take are not allowed for gray wolves in Michigan, Wisconsin, North Dakota, and South Dakota?*

(i) Any form of taking not described in paragraph (o)(2) of this section is prohibited.

(ii) *Export and commercial transactions.* Except as may be authorized by a permit issued under section 17.32 of this subpart, no person may sell or offer for sale in interstate commerce, import or export, or in the course of a commercial activity transport or receive any gray wolves from Michigan, North Dakota, South Dakota, or Wisconsin.

(iii) In addition to the offenses defined in this paragraph (o), we consider any attempts to commit, solicitations of another to commit, or actions that cause to be committed any such offenses to be unlawful.

(iv) *Use of unlawfully taken wolves.* No person, except for an authorized person, may possess, deliver, carry, transport, or ship a gray wolf taken unlawfully in Michigan, North Dakota, South Dakota, or Wisconsin.

(4) *What are the reporting requirements for gray wolf takings?* Except when otherwise indicated in this paragraph (o), or when a permit issued under 50 CFR 17.32 specifies otherwise, any taking must be reported to us within 24 hours. 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.

Dated: June 9, 2000.

**Stephen C. Saunders,**

*Deputy Assistant Secretary for Fish and Wildlife and Parks.*

[FR Doc. 00-17621 Filed 7-11-00; 8:45 am]

**BILLING CODE 4310-55-P**