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Holding the Wolf by the Ears: The Conservation of the Northern Rocky Mountain Wolf in Yellowstone National Park

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HOLDING THE WOLF BY THE EARS: THE CONSERVATION OF THE NORTHERN ROCKY MOUNTAIN WOLF IN YELLOWSTONE NATIONAL PARK

*Timothy B. Strauch**

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I. INTRODUCTION

"But as it is, we have the wolf by the ears, and we can neither hold him, nor safely let him go. Justice is in one scale, and self-preservation in the other."¹

Few Americans would be unable to understand Thomas Jefferson's metaphor, so pervasive are its components—slavery and the wolf—as images in contemporary United States society. This is so despite the fact that similarly few Americans have had first-hand experience with either component. The United States abolition of slavery is well known;² the near-disappearance of the wolf is not.³ Likewise, what to do with surviving wolf populations remains largely obfuscated by a dispute of national proportions. Today, this dispute has been brought into the limelight by the Northern Rocky Mountain Wolf in Yellowstone National Park.

Section II of this article examines the eradication of the Northern Rocky Mountain Wolf from its historic territory. At one time, the wolf fit squarely within the North American ecosystem.⁴ Nevertheless, live-

1. Letter from Thomas Jefferson to John Holmes (April 22, 1820) (discussing the slavery issue presented by the "Missouri Compromise"), reprinted in 15 *THE WRITING OF THOMAS JEFFERSON* 249 (Andrew A. Lipscomb ed., 1903).

2. On January 1, 1863, during the American Civil War, President Abraham Lincoln issued the Emancipation Proclamation. On December 18, 1865, Congress ratified the Thirteenth Amendment to the Constitution of the United States, abolishing slavery. U.S. CONST. amend. XIII.

3. For example, wolves had been eliminated from New England by 1788. George C. Coggins & Parthenia B. Evans, *Predator's Rights and American Wildlife Law*, 24 *ARIZ. L. REV.* 821, 830 (1982).

4. "An ecosystem, or ecological system, is a complex of living and non-living environmental components interacting and closely interdependent in any kind of fairly stable situation." LEDERER, *ECOLOGY AND FIELD BIOLOGY* 5 (1984). "The predatory species evolved side-by-side with prey species; their mutual dependence is critical to the elusive stasis called the balance of nature." Coggins & Evans, *supra* note 3, at 824.

stock producers, landowners, and developers saw the wolf, a predator,⁵ as inimical to their interests. As a result, the wolf steadily lost its historic place. From the mid-nineteenth through the mid-twentieth centuries, private individuals, local and state authorities, and federal agencies made concerted efforts to eradicate the wolf from expanding settlements, including Yellowstone National Park. Their efforts were nearly successful. Today, the same groups might be equally successful in saving the wolf from extinction. Many of the agents responsible for the wolf's demise now have the duty to bring the wolf back from the brink of extinction.

Section III of this article focuses on the above duties in the context of conservation and recovery of the Northern Rocky Mountain Wolf under the Endangered Species Act of 1973 (ESA).⁶ When President Nixon signed the ESA in 1973, this new law was intended, in part, to facilitate state conservation of certain species. Specifically, the ESA mandates listing, recovery, and conservation of species threatened by extinction; effectively dropped from the balance of nature.⁷ The gray wolf is one such species. Much of the current debate over wolf conservation efforts under the ESA revolves around the proposed recovery of the wolf in Yellowstone National Park. By focusing on this controversial proposal, section III of this article demonstrates that human tolerance and political correctness have proven most influential on the destiny of the Northern Rocky Mountain Wolf.

Section IV of this article discusses management and control of wolves under the ESA. A substantial portion of political opposition to and lack of human tolerance for wolf recovery originates from concerns over issues analyzed in this section. Wolf advocates and opponents alike agree that working plans for wolf management and control are a prerequisite to successful wolf conservation. Yet these groups do not always agree on permissible levels of control and management under the ESA. As section IV demonstrates, the ESA currently contains flexibility often overlooked, but sufficient to satisfy reasonable management and control demands.

In the context of the wolf in Yellowstone National Park, this inherent ESA flexibility remains untried. Federal agencies, state govern-

5. Biologically, any organism that kills and eats other organisms is considered a "predator." LEDERER, *supra* note 4, app. at 408. Examples of predators include large carnivores such as wolves, bears, mountain lions, and alligators; lesser carnivores such as eagles, hawks, owls, coyotes, foxes, bobcats, weasels, ferrets, and snakes; and competitors such as harbor seals, wild horses and burros, sea otters, and rabbits. Coggins & Evans, *supra* note 3, at 822-23.

6. 16 U.S.C. §§ 1531-1544 (1988).

7. See George C. Coggins & Michael E. Ward, *The Law of Wildlife Management on the Federal Public Lands*, 60 OR. L. REV. 59, 62 (1981). "Since 1600 at least 300 species of animals have become extinct due to human disturbance, and up to 4% of vertebrate species are now in danger of becoming extinct." LEDERER, *supra* note 4, at 216.

ments, and conservationist⁸ groups all have interpretations of the ESA flexibility limits. None, however, have actually tested their opinions by utilizing available methods. This decision to do nothing works not only to the detriment of the wolf, but to the ecosystem as a whole⁹ and all parties involved.

II. HISTORICAL PERSPECTIVE ON THE WOLF

A. *The Northern Rocky Mountain Wolf*

The wolf that once lived in Yellowstone National Park is known as the Northern Rocky Mountain Wolf, *Canis lupus irremotus*. Early taxonomists recognized thirty-two subspecies of the gray wolf, including *irremotus*.¹⁰ One of twenty-four subspecies of the gray wolf found in North America, *irremotus* lived at one time throughout nearly all of Wyoming, Montana, Idaho, and parts of Washington, Oregon and South Dakota.¹¹ In 1973, the Secretary of the Interior listed *irremotus*

8. The author cautiously distinguishes between "environmentalists" and "conservationists." Environmentalists attempt to make the world a better place for man. Conservationists believe the world should be an ideal place for all species equally. There is a growing line of demarcation between the two groups described as follows:

Conservation admits to the premise that nonhuman species and natural systems are intrinsically valuable; environmentalism is utilitarian. That distinction is a huge one. For a conservationist to talk about the 'environment,' as though it were synonymous with 'nature,' seems as jarringly wrongheaded as for a white liberal to talk about 'darkies' and 'gooks.'

David Quammen, *Dirty Word, Clean Place*, OUTSIDE, August, 1991, at 25-26.

9. For example, one plausible explanation for the burgeoning buffalo population in Yellowstone National Park is lack of wolf depredations. So large has the bison herd become that some animals are leaving park boundaries in search of better grazing. These buffalo have set the stage for confrontations between conservationists and hunters such as the one on March 13, 1990. The gray wolf, if reintroduced to Yellowstone National Park, might help avoid such conflicts by balancing the size of the buffalo herd. Craig Vetter, *The Buffalo Wars: Just Outside Yellowstone the Question is Should You Let Bison be Bison or Should You Shoot Them*, OUTSIDE, May, 1991, at 55, 57-59. Whether the Montana-licensed hunting of these wandering bison should be enjoined is the subject of current litigation. See *Fund for Animals, Inc. v. Manuel Lujan, Jr.*, No. 90-142 (D. Mont.), *appeal docketed*, No. 91-35283 (9th Cir. 1991).

10. L. DAVID MECH, *THE WOLF: THE ECOLOGY AND BEHAVIOR OF AN ENDANGERED SPECIES* (1981).

11. See 2 E. RAYMOND HALL & KEITH R. KELSON, *THE MAMMALS OF NORTH AMERICA*, 849-50 (1959). Wolves live in a wolf pack, a family unit of 2 to 36 wolves, the leadership of which is provided by a single breeding pair, the alpha pair. The alpha pair breed exclusively with one another while the rest of the pack is organized in social hierarchies. The size of any given pack is determined by several factors: (1) the minimum number of wolves necessary to kill prey effectively, (2) the maximum number that can feed on the kills, (3) the number of other pack members with which each wolf can form social bonds, and (4) an acceptable amount of social competition. Because of the family orientation of a pack, a group of wolves foreign to one another will rarely organize itself into a cohesive pack. ROLF O. PETERSON, U.S. DEP'T OF THE INTERIOR, *WOLF ECOLOGY AND PREY RELATIONSHIPS ON ISLE ROYALE* 67-74 (1977); see MECH, *supra* note 10; see also U.S. FISH AND WILDLIFE SERVICE IN COOPERATION WITH THE NORTHERN ROCKY MOUNTAIN RECOVERY TEAM, *NORTHERN ROCKY MOUNTAIN WOLF RECOVERY PLAN* 64-65 (1987) [hereinafter *RECOVERY PLAN*].

In the northern Rocky Mountains, wolves feed primarily on large ungulates including elk, moose, and deer (mule and white-tail). JOHN WEAVER, U.S. DEP'T OF THE

as endangered¹² under the ESA.¹³ The subspecies, however, is now believed to be extinct.¹⁴

In response to a trend among taxonomists to recognize that only four or five (rather than twenty-four) subspecies of the gray wolf once lived in North America, the Secretary of the Interior listed the entire species *Canis lupus* as endangered in the forty-eight contiguous states, except Minnesota.¹⁵ The current efforts by the Fish and Wildlife Service to recover the wolf in Yellowstone National Park are formally directed at the "Northern Rocky Mountain Wolf."¹⁶ Because that subspecies is extinct, their efforts involve "gray wolves [*Canis lupus*] in the northern Rocky Mountains of the contiguous 48 states, rather than . . . a specific subspecies [*Canis lupus irremotus*]."¹⁷

The decline in the population of *Canis lupus* (the "wolf") from its historic range,¹⁸ to its present endangered status resulted from:¹⁹ 1)

INTERIOR, *The Wolves of Yellowstone* (1978). Wild wolves have an average prey consumption rate of 6-13 pounds of meat per wolf per day but may go without food for as long as two weeks if food is not available. RECOVERY PLAN, *supra*, at 69.

12. 38 Fed. Reg. 14,678 (1973).

13. Definitions of endangered and threatened species and the protections afforded them under the ESA are discussed *infra* parts III.B. and IV.C.

14. Telephone Interview with Dr. Steven H. Fritts, Rocky Mountain Wolf Coordinator, Montana-Wyoming Field Office, U.S. Fish and Wildlife Service (June 28, 1991).

15. 43 Fed. Reg. 9,612 (1978). See 50 C.F.R. § 17.11 (1990) for final listings of the gray wolf on endangered and threatened lists under the ESA. In September, 1974, the Minnesota Department of Natural Resources petitioned United States Fish and Wildlife Service (FWS) to "delist" the Minnesota wolf population from endangered status under the ESA. FWS deferred its decision pending recommendation of the Eastern Timber Wolf Recovery Team. Later, as a result of a 1978 case in the United States District Court for the District of Minnesota brought by a farmer for compensation for livestock depredation, *Brzoznowski v. Andrus*, Civ. No. 5-77-19 (D. Minn. June 9, 1978), and on recommendation of the Eastern Timber Wolf Recovery Team, the Secretary of the Interior reclassified Minnesota's wolf population from endangered to threatened status. 43 Fed. Reg. 9,607 (1978) (codified at 50 C.F.R. § 17 (1980)); *Fund for Animals v. Andrus*, 11 E.R.C. 2189 (D. Minn. 1980); see generally Janice Goldman-Carter, *Federal Conservation of Threatened Species: By Administration Discretion or by Legislative Standard?*, 11 B.C. ENVTL. AFF. L. REV. 63, 68-69 (1983).

On July 11, 1990, David Flitner (president, Wyoming Farm Bureau), David McClure (president, Montana Farm Bureau), and William Brown (executive vice-president, Idaho Farm Bureau), filed a petition to delist the gray wolf from the ESA endangered and threatened lists. The petitioners argued gray wolves are "hybridizing" with other canids, especially coyotes and therefore: 1) the wolf is not a species eligible for ESA listing, and 2) FWS is unable to distinguish between "pure" wolves from hybrid ones, rendering it impossible to carry out eventual recovery of the wolf. In October, 1990, FWS issued its finding holding that delisting of the wolf was unwarranted for the following reasons: 1) data does not support occurrence of widespread hybridization of U.S. gray wolves and other canids; 2) the petition misinterprets DNA data; 3) FWS cannot consider probability for successful recovery in deciding whether to delist a species; 4) the best scientific and commercial data support continued listing. Notice of 90-Day Finding, 55 Fed. Reg. 49,656 (1990).

16. RECOVERY PLAN, *supra* note 11, at 1.

17. *Id.* See also *supra* text accompanying note 14.

18. See *supra* note 11 and accompanying text.

19. See MECH, *supra* note 10; see also STANLEY P. YOUNG AND EDWARD A. GOLDMAN, *THE WOLVES OF NORTH AMERICA* (1944); Cf. OFFICE OF ENDANGERED SPECIES AND INTERNATIONAL ACTIVITIES, U.S. DEP'T OF THE INTERIOR, *THREATENED WILDLIFE OF*

human settlement and land development, 2) introduction of domestic livestock, 3) misunderstandings of wolf ecology and habitat, 4) superstition and folk lore, 5) territorial management programs,²⁰ and 6) elimination of prey across a large portion of the wolf's range. Since this article focuses primarily on issues involving recovery of the wolf through control and management programs, the wolf population decline will be described mostly in terms of territorial predator control programs. Nevertheless, the other factors listed above are implicated in a recovery program²¹ directed at removal of the wolf from the endangered and threatened species lists.

B. Early Reports and Killings of the Wolf in the Northern Rocky Mountain Area

Before the turn of the nineteenth century, many native American tribes and wolf packs shared a nomadic way of life driven by a common food source.²² Together, they followed and hunted great herds of buffalo that roamed the plains east of the Rocky Mountains. The Milky Way, the way to the spirit world, was known by the Blackfoot Indians as the Wolf Trail.²³ The Blackfoot believed "the gun that shoots at a wolf or coyote will never again shoot straight."²⁴

Up until the turn of the nineteenth century, Americans on the east coast knew very little about the territory around the northern Rocky Mountains or its inhabitants. Around 1805, however, reports from Captain Meriwether Lewis and William Clark and tales from french *couriers* and trappers began to trickle back to the eastern states. Among these reports were stories of great numbers of wolves in the area,²⁵ and of numerous depredations of game animals by wolves. In his journal, Clark noted that "[a]ll meat which is left out [at] night falls to the wolves which are in great numbers."²⁶ Ross Cox, a trapper, told how the Flathead Indians bought horses from the Nez Perce Indi-

THE UNITED STATES 235 (1973).

20. State game management programs historically, politically, and economically focused on the sport hunting industry, strongly favoring species having recreational value to hunters. Consequently, traditional state management programs did not adequately protect species viewed as inimical to game populations. Coggins & Ward, *supra* note 7, at 63, 68 & n.43, 69-71.

21. See *infra* notes 115-116 and accompanying text.

22. GREAT FALLS TRIB., May 10, 1990, at 1B.

23. *Id.*

24. *Id.* Unlike most native Americans, colonists settling in the United States continued a historical hatred for the wolf. BARRY H. LOPEZ, *OF WOLVES AND MEN* 203 (1978); YOUNG & GOLDMAN, *supra* note 19, at 7.

25. For example, wolves existed throughout most of Idaho, in unknown, but historically stable, populations during and through the mid-1800s. In 1812, the first recorded wolf packs in Idaho appeared in the Clearwater drainage. Around 1840, wolf numbers may have peaked in Idaho, particularly in the southeast and central parts of that state where ungulate prey were abundant. YOUNG & GOLDMAN, *supra* note 19, at 52-56.

26. GREAT FALLS TRIB., May 10, 1990, at 6B.

ans because wolves "ate so many of the Flatheads' foals."²⁷ Despite these reports, primary attention remained on fur trade, not wolf control.

In the 1850s, as intense trappings reduced beaver populations, the fur trade shifted from beaver to buffalo.²⁸ From 1850 to 1870, teams of hunters and skinners shot buffalo and left behind the skinned carcasses to rot on the plains or be eaten by scavengers.²⁹ Hunters told stories of wolves waiting while the buffalo were skinned and "feasting on the carcasses once the hunters left."³⁰

As the buffalo were decimated, a new group of hunters came to the area. The wolves, plentiful in number due to the vast amount of food available from buffalo carcasses strewn about the plains, were their prey.³¹ Known as "wolfers", the new hunters shot buffalo and left the carcasses laced with strychnine to kill scavenging wolves.³² Any wolf or animal that fed from the poisoned carcass (the "bait") died nearby. As many as 100 dead wolves might be found at a single bait.³³ Checking the bait every few days, wolfers skinned the wolves for their pelts and then moved on to the next bait.³⁴ In this way, between 1870 and 1877, around 55,000 wolves were reportedly killed each year.³⁵

Buffalo were likewise being obliterated by hunters, and fewer and fewer survived each year for the hunters to harvest. In 1876, the Fort Benton, Montana shipment of buffalo hides peaked at 80,000.³⁶ Re-

27. *Id.*

28. See FISH AND WILDLIFE ENHANCEMENT, U.S. FISH AND WILDLIFE SERVICE, WOLF RECOVERY IN MONTANA, 1989 ANN. REP. 1 [hereinafter 1989 ANNUAL REPORT].

29. *Id.*

30. GREAT FALLS TRIB., May 10, 1990, at 6B.

31. *Id.*

32. *Id.* Typically, supplies for one winter cost a wolfer around \$200, while wolf pelts sold for \$2 apiece. It was not uncommon for a wolfer to make more than \$1000 a winter. In 1873, one group of wolfers had a particularly successful season: "There were five or six teams, some of them four-horse teams, and they had about 10,000 wolf skins among them [the wolfers]. They had put in a very profitable winter, as wolf skins in [Fort] Benton [Montana] were worth \$2.50 each." *Id.*, quoting THE DAILY HERALD OF HELENA; see also 1989 ANNUAL REPORT, *supra* note 28, at 1.

33. GREAT FALLS TRIB., May 10, 1990, at 6B.

34. *Id.*

35. *Id.* The reported number of wolves killed most likely included a number of coyotes. Telephone interview with Dr. Steven H. Fritts, Northern Rocky Mountain Wolf Coordinator (July 22, 1991). Much of this historical account of the population decline of the wolf relates to the history of the wolf in Montana. This history, however, was shared throughout the northern Rocky Mountain area, including Wyoming and Idaho. See LOPEZ, *supra* note 24; T. KAMINSKI & J. HANSEN, WOLVES FOR CENTRAL IDAHO (Mont. Coop. Wildlife Res. Unit, Univ. of Mont. 1984); YOUNG & GOLDMAN, *supra* note 19.

36. GREAT FALLS TRIB., May 10, 1990, at 6B. Ostensibly, American buffalo were eliminated from the plains because of value of their fur and meat to settlers. Bison slaughter was in part accomplished in order to cut off a primary food source for plains Indians in an effort to gain control over valuable native American lands. VICTOR J. YANNAcone, JR. ET AL., ENVIRONMENTAL RIGHTS AND REMEDIES § 13.21, at 1866 (1973 & Cum. Supp. 1988) [hereinafter ENVIRONMENTAL RIGHTS].

sponding to concerns over dwindling numbers of bison herds, the Montana territorial legislature passed a bill limiting the buffalo hunting season from August 10 to February 1.³⁷ By 1884, however, buffalo "were virtually exterminated" from the plains east of the northern Rockies.³⁸

C. Wolf Population Decline Under Severe Predator Control Programs

As the buffalo were eliminated and native Americans translocated from grazing lands, the way opened for cattle.³⁹ Simultaneously, the death knell sounded for the wolf. Very few depredations of cattle were noted during this early period of open range grazing.⁴⁰ Nevertheless, the Montana territorial legislature enacted the first predator bounty in 1883.⁴¹ The bounty for wolves was one dollar per pelt, and there were also bounties for mountain lions and bears.⁴²

While overgrazing and homesteading reduced acreage of open rangeland, fences became more common and depredations of cattle more readily noticeable. At the same time, hunting significantly reduced native ungulate populations,⁴³ forcing wolves which normally hunted game to turn to cattle within fenced lands.⁴⁴ In response to this turn of events and at the urge of ranchers, "wolves were poisoned, shot, ran by dogs, pups were removed from the dens, and in 1905 sarcoptic mange was introduced by [Montana] veterinarians."⁴⁵ From 1883-1918, 80,730 wolves were killed for the bounty in the state of Montana alone and by 1926 they were eliminated from that state altogether.⁴⁶ Similar events took place in Idaho.

37. 1883 MONT. LAWS 13TH SESS.

38. 1989 ANNUAL REPORT, *supra* note 28, at 1.

39. Jesuit missionaries brought the first cattle into the Bitterroot Valley of Montana sometime in 1846, but commercial cattle operations did not expand into the eastern plains until around 1880. *Id.* at 1-2.

40. *Id.* at 2. The fact that there were few reports of cattle depredations during this period "may have been due to the large amount of carrion from the hide hunting and the fact that ranchers kept track of only calves branded in the spring, and turned cattle loose on open range [without being able to track their losses]." *Id.*

41. *Id.*

42. 1883 MONT. LAWS 13TH SESS. "A bounty program encourages the extermination of predatory animals by offering a set monetary reward for each carcass presented to state authorities." Goldman-Carter, *supra* note 15, at 67 n.21. State and local bounties and wolf elimination efforts were implemented throughout the northern Rocky Mountain region with varying degrees of success. YOUNG & GOLDMAN, *supra* note 19, at 380-81.

43. Ungulates are "[a]nimals that have hooves. [Examples of ungulates are] deer, elk, mountain goats, bighorn sheep, moose, antelope, caribou, bison, and horses." RECOVERY PLAN, *supra* note 11, app. at 59.

44. See 1989 ANNUAL REPORT, *supra* note 28, at 2.

45. *Id.* Sarcoptic mange is a communicable skin disease among domestic animals due to infestation with scabies mites which burrow beneath the skin. DORLAND'S ILLUSTRATED MEDICAL DICTIONARY (26th ed. 1981). See LOPEZ, *supra* note 24, at 167-99 for a complete record of various wolf hunting methods.

46. 1989 ANNUAL REPORT, *supra* note 28, at 2; see also YELLOWSTONE NATIONAL

In the early 1900s, the Idaho state legislature authorized the Idaho Department of Fish and Game to "devise and put into operation such methods and means, as would best serve to attain extermination of wolves, coyotes, wildcats and cougars."⁴⁷ From 1919 through 1928, 258 wolves were killed under this Idaho management program.⁴⁸ In 1927, a U.S. Biological Survey (Department of Agriculture) report concluded "[l]arge gray or lobo wolves have been almost cleared from livestock ranges . . . only a few scattered individuals remain."⁴⁹ By the 1950s there were so few surviving wolves in Idaho that very few wolves were reported killed despite maintained predator control programs.⁵⁰

Population decline of the Northern Rocky Mountain Wolf under the above Montana and Idaho predator control programs paralleled management practices involving another wolf subspecies in Minnesota.⁵¹ By 1975, however, Minnesota officials halted legal, public killings of the wolf.⁵² With the advent of a subsequent recovery and control program, Minnesota currently holds the largest wolf population (about 1,550 to 1,750 wolves) in the forty-eight contiguous states.⁵³ Recovery plans proposed for the Northern Rocky Mountain Wolf⁵⁴ draw upon Minnesota wolf recovery experience.⁵⁵

PARK ET AL., *WOLVES FOR YELLOWSTONE? A REPORT TO THE U.S. CONGRESS 1* (1990) [hereinafter *WOLVES FOR YELLOWSTONE*] (copies available from the Yellowstone Association, P.O. Box 117, Yellowstone National Park, Wyoming 82190).

47. IDAHO DEP'T. FISH & GAME, *GRAY WOLF: HISTORY, PRESENT STATUS, AND MANAGEMENT RECOMMENDATIONS* (1981).

48. *Id.*

49. RECOVERY PLAN, *supra* note 11, at 6. In the late 1800s, after local authorities called for federal assistance, local governments, the Biological Survey, and the Forest Service initiated a joint wolf elimination effort. By 1942, government hunters had recorded 24,132 wolf kills throughout the northern Rocky Mountain region. LOPEZ, *supra* note 24, at 187; YOUNG & GOLDMAN, *supra* note 19, at 383.

50. IDAHO DEP'T. OF FISH & GAME, *supra* note 47.

51. In 1849, the Minnesota legislature placed a \$3 bounty on eastern timber wolves, *Canis lupus lycaon*, and "varying amounts were paid until the bounty was removed in 1965 [by Governor Carl Rolvaag]." In addition to this bounty program, the Minnesota Department of Conservation hired hunters and trappers in an effort that was responsible for an average of 312 wolves killed per year from 1949 to 1956. MINNESOTA DEP'T. OF NATURAL RESOURCES, *MINNESOTA TIMBER WOLF MANAGEMENT PLAN 3* (1980).

From 1969 until September, 1974, Minnesota implemented a "Directed Predator Control Program" primarily to address coyote depredations. Minnesota local trappers registered under the program were paid fifty dollars for each wolf taken. STEVEN H. FRITTS, U.S. DEP'T OF THE INTERIOR, *WILDLIFE DEPREDATION ON LIVESTOCK IN MINNESOTA 3* (1982).

52. FRITTS, *supra* note 51, at 3.

53. For current wolf population figures in North America see WOLF MANAGEMENT TECHNICAL COMMITTEE, *OVERVIEW OF WOLF MANAGEMENT PROGRAMS IN NORTH AMERICA 13* (Mar. 1, 1991) [hereinafter *MANAGEMENT OVERVIEW*] (unpublished report prepared for the Wolf Management Committee on file with author).

54. Discussed *infra* part III.C.

55. A full report on the recovery and management of wolves in Minnesota is beyond the scope of this article. For notes discussing the same, see Goldman-Carter, *supra* note 15; Keith J. Halleland, *Sierra Club v. Clark: The Government Cries Wolf*, 11 WM. MITCHELL L. REV. 969 (1985); Brian B. O'Neil, *The Law of Wolves*, 18 ENVTL. L. 227 (1988).

D. *The Wolf and Wolf Control in Yellowstone National Park*

About the time when various local authorities were implementing management control programs, Congress, on March 1, 1872, created Yellowstone National Park (Park).⁵⁶ This act set aside approximately 2.2 million acres as "a public park or pleasuring ground for the benefit and enjoyment of the people."⁵⁷ The Secretary of the Interior has exclusive Park control, and "shall provide against the wanton destruction of fish and game found within the park, and against their capture or destruction for the purposes of merchandise or profit."⁵⁸ Wolves were present in the Park through 1872 in unconfirmed, but seemingly low densities.⁵⁹

Despite this original Park establishment mandate, slaughter of big game and predatory animals in the Park continued from 1872 through the 1880s.⁶⁰ "[T]housands of elk, bighorn sheep, deer, antelope, moose, and bison were killed for their tongues and hides, and their carcasses strychnine-poisoned to kill coyotes, wolves, or wolverines."⁶¹ In 1886, President Grover Cleveland assigned U.S. Army personnel to "guard Yellowstone and protect its features and wildlife."⁶² Nevertheless, the Army continued to control predators.⁶³

In 1894, Congress attempted to limit the hunting of wildlife within the Park by enacting the following statute:

All hunting, or the killing, wounding, or capturing at any time of any bird or wild animal, except dangerous animals, when it is necessary to prevent them from destroying human life or inflicting an injury, is prohibited within the limits of [the Park]; . . . The Secretary of the Interior shall make and publish such rules and regulations as he may deem necessary and proper for the . . . protection of the animals and birds in the park, or to prevent their being frightened or driven from the park . . .⁶⁴

Despite this legislation, Park officials continued to allow wolves to be killed.⁶⁵

In 1916, Congress established the National Park Service (NPS) to promote and regulate use of national parks, monuments and reservations. NPS establishment legislation states that its "purpose is to con-

56. Yellowstone National Park Establishment Act, ch. 24, § 1, 17 Stat. 32 (1974)(current version at 16 U.S.C. § 21 (1988)).

57. *Id.*

58. 16 U.S.C. § 22 (1988).

59. WEAVER, *supra* note 11.

60. *See id.* for an historical account of wolves in Yellowstone Park.

61. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1.

62. *Id.*

63. *Id.*

64. 16 U.S.C. § 26 (1988). For special regulations of Yellowstone National Park, *see* 36 C.F.R. § 7.13 (1990).

65. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1.

serve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.”⁶⁶ Given authority to promulgate rules and regulations for park use and management, the Secretary of the Interior could also “provide in his discretion for the destruction of such animals and of such plant life as may be detrimental to the use of any of said parks”⁶⁷ Thus, NPS policy paralleled ongoing predator control practices within the Park.

Prior to the creation of the NPS in 1916, Congress in 1914, authorized predatory animal elimination from all public lands, including national parks.⁶⁸ From 1914 to 1926, U.S. Biological Survey agents killed a minimum of 136 Park wolves, including about 80 pups.⁶⁹ In May, 1922, the Park superintendent reported:

It is evident that the work of controlling these [wolves] must be vigorously prosecuted by the most effective means available whether or not this meets with the approval of certain game conservationists.⁷⁰

Park predator elimination continued until 1926, when NPS policy began to shift away from predator control.⁷¹

Despite congressional authority to continue predator control,⁷² NPS policy by 1933, was that “no native predator shall be destroyed on account of its normal utilization of any other park animal . . . [and] no management measure or other interference with biotic relation-

66. National Park Service Organic Act of 1916, 16 U.S.C. § 1 (1988).

67. 16 U.S.C. § 3 (1988). Although FWS has adopted regulations under this Act, none are specific to control of wolves. See 36 C.F.R. § 7.13 (1990).

68. See 1989 ANNUAL REPORT, *supra* note 28, at 2; see also RECOVERY PLAN, *supra* note 11, at 1.

69. During the same period, 4,352 coyotes and 121 mountain lions were also killed in Yellowstone. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1. NPS policy behind the wolf killings was to protect “more desirable” species such as elk, deer, pronghorn and other herbivores. *Id.* at 44.

70. WEAVER, *supra* note 11, at 35-36.

71. Thomas R. Dunlop, *Values for Varmints: Predator Control and Environmental Ideas, 1920-1939*, 53 PAC. HIST. REV. 141, 158 (1984).

72. A 1931 act authorizing predator eradication remains on the books today: [T]he Secretary of Agriculture is hereby authorized and directed to conduct such investigations, experiments, and tests as he may deem necessary in order to determine, demonstrate, and promulgate the best methods of eradication, suppression, or bringing under control on national forests and other areas of public domain as well as on State, Territory, or privately owned lands of mountain lions, wolves, coyotes, . . . and other animals injurious to agriculture, horticulture, forestry, animal husbandry, wild game animals, fur-bearing animals, and birds, and for the protection of stock and other domestic animals . . . and to conduct campaigns for the destruction of such animals

Act of March 2, 1931, ch. 370, § 1, 46 Stat. 1468 (codified at 7 U.S.C. § 426 (1989)). Authority under this act was vested in the Secretary of Agriculture from 1931 to 1939, when it was transferred to the Secretary of the Interior. Reorganization Plan No. 11 of 1939 § 4(f). In 1986, authority was transferred back to the Secretary of Agriculture. Act of December 22, 1987, Pub. L. No. 100-202, § 106, 101 Stat. 1329-433.

ships shall be undertaken prior to a properly conducted investigation."⁷³ Nevertheless, Park control of coyotes continued, using cyanide "coyote getters"⁷⁴ and Compound 1080 baits.⁷⁵ In 1972, Executive Order 11,643⁷⁶ prohibited use of these devices on federal lands.

In 1982, President Reagan revoked Executive Order 11,643.⁷⁷ This act permitted the Department of the Interior to use chemicals approved by the Environmental Protection Agency (EPA) to control depredating predators, particularly coyotes. Since 1982, the EPA has occasionally granted Compound 1080 use permits for coyote control.⁷⁸

By 1980 federal, state, and private agencies were planning countermeasures to offset the effects of decades of wolf eradication. Until then, eradication programs had been nearly successful in wiping out the wolf population of the lower forty-eight states. Given this success, one could conclude that counteractions by the same groups aimed at wolf recovery might be equally effective. Section III of this article examines the extent of countermeasures taken under the ESA to recover the Northern Rocky Mountain Wolf.

III. WOLF RECOVERY AND CONSERVATION

A. *Current Status of the Northern Rocky Mountain Wolf*

Wolf pack activity has not been confirmed in Yellowstone National Park since the 1930s.⁷⁹ Yet, from 1927 through 1966, thirty-five "probable" reports of single or pairs of large canids⁸⁰ totaling fifty-

73. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1. In the early 1960s, Department of the Interior wildlife reports recommended that predator-prey relationships in national parks should be allowed to take their natural course. STARKER LEOPOLD, ET AL., WILDLIFE MANAGEMENT IN THE NATIONAL PARKS, *reprinted in* 28 TRANSACTIONS OF THE 28TH N. AM. WILDLIFE CONF. 29-44 (1963)(report of the Advisory Board on Wildlife Management appointed by Secretary of the Interior Stewart Udall); STARKER LEOPOLD, ET AL., PREDATOR AND RODENT CONTROL IN THE UNITED STATES (report submitted to Secretary of the Interior Stewart Udall, Mar. 9, 1964), *reprinted in* TRANSACTIONS OF THE 29TH N. AM. WILDLIFE CONF. 27, 35 (1964); *see also* Robert Keiter & Patrick Holscher, *Wolf Recovery Under the Endangered Species Act: A Study in Contemporary Federalism*, 11 PUB. LAND L. REV. 19 (1990) for a full account of the role of Starker Leopold and his father, Aldo Leopold, in shaping and reshaping federal predator control policies.

74. "Coyote getters" are devices used to poison coyotes. FRITTS, *supra* note 51, at 11.

75. Compound 1080 refers to a poison used to kill predatory animals by ingestion. Records do not indicate that these devices were used during this period to kill wolves.

76. 37 Fed. Reg. 2,875 (1972).

77. Exec. Order No. 12,342, 47 Fed. Reg. 4,223 (1982).

78. *See* ENVIRONMENTAL RIGHTS, *supra* note 36, at 1904-05. Predator control devices known as M-44s are not currently EPA registered for use with wolves. FRITTS, *supra* note 51, at 11.

79. *See* WEAVER, *supra* note 11; *see also* RECOVERY PLAN, *supra* note 11, at 1.

80. Canid means "any of a family (*Canidae*) of carnivorous animals that includes wolves, jackals, foxes, coyote, and the domestic dog." WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 201 (1983).

eight animals came from northern corners of the Park.⁸¹ Between 1967 and 1977, there were eighty-one "probable" reports of 109 large canids from the northeast and northwest Park corners, Hayden Valley, and Sunlight Basin east of the Park.⁸² Since, however, the late 1970s, there have been no recorded reports of wolves in the Park.⁸³ Today, the wolf is "believed absent" in the state of Wyoming.⁸⁴

Studies from central Idaho indicate some wolves survived extreme state and federal predator control programs⁸⁵ or returned to the state from Canada.⁸⁶ Although report data varies from actual field investigations, the current Idaho wolf population is "[p]robably fewer than 15."⁸⁷

In 1972, Dr. Robert Ream of the University of Montana organized the Wolf Ecology Project (WEP) to investigate wolf sightings in Montana.⁸⁸ In 1974, one year after ESA enactment, FWS appointed a wolf recovery team (Recovery Team). Recovery Team members were individuals from federal and state agencies, conservation groups, and livestock organizations. Together, WEP and the Recovery Team set out to develop a Northern Rocky Mountain Wolf recovery plan.⁸⁹

Partially as a result of WEP and Recovery Team monitoring efforts,⁹⁰ Montana wolf sightings increased from ten in 1970, to 265 in 1990.⁹¹ In 1986, at Glacier National Park, Dr. Ream and WEP confirmed the first "denning" of wolves in Montana in fifty years.⁹² In-

81. See WEAVER, *supra* note 11.

82. *Id.*

83. See RECOVERY PLAN, *supra* note 11, at 5.

84. MANAGEMENT OVERVIEW, *supra* note 53, at 19; *but see* KEITER & HOLSCHER, *supra* note 73, for reports of recent wolf sightings in the Yellowstone area. FWS agents are currently investigating wolf sightings in Beaverhead National Forest, south of Ennis, Montana, not far from the northwestern Yellowstone National Park boundary. *Young Wolf Caught Near Fortine*, GREAT FALLS TRIB., July 27, 1991, at 9A; *see infra* notes 163-164 and accompanying text.

85. See *supra* notes 41-55 and accompanying text.

86. See KAMINSKI & HANSEN, *supra* note 35.

87. MANAGEMENT OVERVIEW, *supra* note 53, at 18. For a summary of the Idaho wolf studies, *see* RECOVERY PLAN, *supra* note 11, at 6-7.

88. 1989 ANNUAL REPORT, *supra* note 28, at 3.

89. *Id.*

90. WEP and the Recovery Team developed a reporting system and standard forms to interview observers and to record wolf sightings and/or observations of wolf signs. In 1983, the groups combined the forms into one standard reporting form, "modified for computer storage and retrieval." RECOVERY PLAN, *supra* note 11, at 3. Over the years, local residents, outfitters, hunters, backpackers, trappers, loggers, and agency personnel have reported wolf-related observations. Given the biases and limitations inherent in using observations provided by others, reports do not establish actual numbers of wolves in the northern Rocky Mountain area, but do indicate areas where the wolf occurs. *Id.* at 4.

91. MONTANA INTERAGENCY WOLF WORKING GROUP, 1990 [hereinafter 1990 ANNUAL REPORT]. For full summaries of reported sightings and control efforts, *see* RECOVERY PLAN, *supra* note 11, at 4-5; *see also* 1989 ANNUAL REPORT, *supra* note 28; MANAGEMENT OVERVIEW, *supra* note 53.

92. 1990 ANNUAL REPORT, *supra* note 91, at 2; *see* 1989 ANNUAL REPORT, *supra* note 28, at 3. This group of wolves was known as the Magic Pack.

cluding wolves in and near Glacier National Park, the North Fork of the Flathead River,⁹³ and the Ninemile Valley,⁹⁴ at least four wolf dens were documented in Montana in 1990.⁹⁵ The current Montana wolf population is "about 40 [to] 60."⁹⁶

Despite decimation of the Ninemile Pack, which Recovery Plan officials had hoped would disperse into Idaho, the return of Montana wolves is proceeding.⁹⁷ This return "is due to the effort by the Canadian government to manage wolves in the lower part of the Provinces, the desire by the people of Montana and the country as a whole to have the wolf as a part of the ecosystem, and the increase in ungulate numbers brought about by the State's ungulate management practices."⁹⁸

Groups and researchers managing and monitoring the return of Montana wolves agree the population will continue to increase.

We expect wolf observations will increase even more in the future as public awareness of wolf recovery and the number of packs increase. The future of wolf recovery in Montana looks very promising. As more people become aware that many of the fears about wolf recovery are unfounded, (i.e. wolves are not a threat to human safety, do not usually attack livestock, rarely contribute to declines in ungulate populations, and do not require extensive changes in current land uses), people will welcome the return of

93. 1990 ANNUAL REPORT, *supra* note 91, at 2; see 1989 ANNUAL REPORT, *supra* note 28, at 3. These are the Camas, Wigwam, and Headwaters Packs.

94. The so-called Ninemile Pack formed when a female translocated in 1989 from Marion, Montana found a new mate and had a litter of six pups in spring, 1990 in the Ninemile Valley northwest of Missoula, Montana. *Human interference caused wolf pack's death, officials say*, GREAT FALLS TRIB., June 23, 1991, at 4B. For a complete report on FWS control action in response to the original Marion wolf depredations, see Issue Statement from Ed Bangs, Montana Wolf Recovery Project Leader, Montana State Office, Helena, Montana, to Galen L. Buterbaugh, Regional Director, FWS (rev. April 19, 1990).

95. 1990 ANNUAL REPORT, *supra* note 91, at 2; see 1989 ANNUAL REPORT, *supra* note 28, at 3; cf. *Three wolf packs in Park, Experts say*, GREAT FALLS TRIB., Oct. 19, 1991, at 2B.

96. MANAGEMENT OVERVIEW, *supra* note 53, at 17. This number counts the fact that the Ninemile Pack was decimated by human interference over the course of 1990 to 1991. *Id.* Both adult wolves of this pack were killed, and three out of the six pups born in 1990 have been found dead. GREAT FALLS TRIB., *supra* note 94, at 4B. On June 17, 1991, a fourth yearling of the defunct pack, a female, was found illegally killed. *Id.* Of the entire pack, two yearlings survive. Of these two, one is "very likely" still in the Ninemile Valley area with a female who naturally dispersed from the Camas Pack in Glacier National Park. Telephone Interview with Ed Bangs, Montana Wolf Recovery Project Leader (July 22, 1991).

97. FWS is currently involved in efforts to confirm the existence of the Murphy Lake Pack of eight wolves, consisting of two adults, three yearlings and three pups, near Fortine, Montana. Agents are also investigating wolf sightings in the Beaverhead National Forest, south of Ennis, Montana. GREAT FALLS TRIB., *supra* note 84, at 9A. Ennis sightings are "probable," not confirmed. Telephone Interview with Dr. Steven H. Fritts, Rocky Mountain Wolf Coordinator (October 21, 1991).

98. 1990 ANNUAL REPORT, *supra* note 91, at 19.

wolves as part of Montana's wildlife heritage.⁹⁹

If these expectations prove accurate, wolves from Montana and Idaho may continue to proliferate and disperse throughout the northern Rocky Mountain region, including Yellowstone National Park. Such natural dispersion could have significant effects on the management of any Park wolf population under the ESA.¹⁰⁰

B. *The Endangered Species Act*

In December, 1973, Congress enacted the Endangered Species Conservation Act.¹⁰¹ The ESA recognizes that rare wildlife and plants "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."¹⁰² The purposes of the ESA are:

[T]o provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the [various established] treaties and conventions¹⁰³

When the ESA was reauthorized in 1979,¹⁰⁴ Congress transferred regulatory authority from the Endangered Species Scientific Authority to the Secretary of the Interior (the Secretary).¹⁰⁵

99. *Id.* at 20.

100. See *infra* part IV.

101. The Endangered Species Act of 1973, Pub. L. No. 93-205, 81 Stat. 884 (1973) (codified as amended at 16 U.S.C.A. §§ 1531-1544 (1985 & Supp. 1991)), The ESA repealed sections 1-3 of the Endangered Species Conservation Act of 1966 (Pub. L. No. 89-669, §§ 1-3, 80 Stat. 926 (1966 Act)) and sections 1-6 of the Endangered Species Conservation Act of 1969 (Pub. L. No. 91-135, 83 Stat. 275 (1969 Act)). Sections 4 and 5 of the 1966 Act were redesignated as the National Wildlife Refuge System Administration Act of 1966, Pub. L. No. 91-135, § 12(f), 83 Stat. 275 (codified at 16 U.S.C.A. §§ 668dd-668ee (1985 & Supp. 1991)). The remainder of the 1969 Act has been codified as amended throughout sections of 16 U.S.C. and 18 U.S.C. The ESA was amended by the Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, 92 Stat. 3571, and the Endangered Species Act Amendments of 1982, Pub. L. No. 97-304, 96 Stat. 1411. In 1988, the ESA was reauthorized by Congress. H.R. CONF. REP. No. 1467, 100th Cong., 2d Sess., CONG. REC. H82449-58 (1988); S.R. CONF. REP. No. 1467, 100th Cong., 2d Sess., CONG. REC. S12557-61 (1988).

102. 16 U.S.C. § 1531(a)(3) (1988). This new act also recognized that the 1966 and 1969 Acts "simply [did] not provide the kind of management tools needed to act early enough to save a vanishing species." S. REP. No. 307, 93d Cong., 1st Sess. 3, *reprinted in* 1973 U.S.C.A.N. 2989, 2991; President's Environmental Message of February 8, 1972, 8 WEEKLY COMP. PRES. DOC. 218, 223-24.

103. 16 U.S.C. § 1531(b) (1988). The ESA protects over 500 species of animals and 20,000 species of plants classified as endangered or threatened by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, *opened for signature* March 3, 1973 [1976] 27 U.S.T. 1087, T.I.A.S. No. 8249 [hereinafter the Convention]. See 44 Fed. Reg. 25,480 (1979) for the list of species.

104. Pub. L. No. 96-159, 93 Stat. 1225 (1979).

105. ESA reauthorization also provided that FWS would take over management and scientific authority under the Convention. See 16 U.S.C. § 1532(15) (1988). Thus,

One of the Secretary's duties is to list and delist species as endangered or threatened.¹⁰⁶ The decision to list or delist must be determined exclusively by the "best scientific and commercial data available."¹⁰⁷ An "endangered" species is defined by the ESA as "any species which is in danger of extinction throughout all or a significant part of its range."¹⁰⁸ A "threatened" species is defined by the ESA as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."¹⁰⁹ The gray wolf is listed as endangered in the forty-eight contiguous states, except Minnesota, where it is classified as threatened.¹¹⁰

FWS is under an affirmative duty to conserve both endangered and threatened species.¹¹¹ Conservation includes:

[t]he use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.¹¹²

This duty includes not only protection of an endangered or threatened species from harm, but also recovery of species from threat of extinc-

the Secretary's duties run parallel to those of FWS.

106. 16 U.S.C. § 1533(b)(1)(A) (1988).

107. *Id.* In 1983, FWS provided guidelines which assign priorities to listing, delisting, and reclassification of species under the ESA. In 1984, FWS adopted revised guidelines for listing species based solely on biological considerations. 50 C.F.R. § 424.11 (1990); see *id.* § 424.14(b) for procedures regulating public petitions to list or delist species.

An environmental impact statement under the National Environmental Policy Act of 1969 is not required for the classification of a species under the ESA. *Pacific Legal Foundation v. Andrus*, 13 E.R.C. 1266 (D. Tenn. 1979), *aff'd*, 657 F.2d 829 (6th Cir. 1981); see 48 Fed. Reg. 49,244 (1983); see *infra* note 125.

108. 16 U.S.C. § 1531(a)(3) (1988). Unless FWS changes the classification, species designated as threatened with extinction under the 1969 Act are listed as endangered under the ESA. 50 C.F.R. §§ 17.1-17.108 (1990). The 1969 Act protected only species in danger of extinction on a worldwide basis; the 1973 Act protects species threatened within a significant portion of the species' range, even if not threatened on a worldwide level. ENVIRONMENTAL RIGHTS, *supra* note 36, at 1873-74, n.56.

109. 16 U.S.C. § 1532(20) (1988). Prohibitions on taking and importation of endangered species at section 9 of the ESA (discussed *infra* notes 299-323 and accompanying text) do not apply to threatened species. Threatened species are afforded "jeopardy" protection under section 7 of the ESA (discussed *infra* notes 118-137 and accompanying text).

110. See *supra* note 15.

111. 16 U.S.C. §§ 1532(3), 1536(a)(1) (1988).

112. *Id.* § 1532(3).

tion.¹¹³ The FWS "must bring these [endangered and threatened] species back from the brink so that they may be removed from the protected class, and it [the Service] must use all methods necessary to do so. The Service cannot limit its focus to what it considers the most important tool available to it, i.e., habitat control, to accomplish this end."¹¹⁴

In order to bring a species "back from the brink," government authorities must adopt programs (recovery plans) to increase species populations.¹¹⁵ A recovery plan aims at attaining population numbers where disease, land development, inbreeding, and other factors no longer threaten species extinction.¹¹⁶ The ESA specifies that "[t]he Secretary shall develop and implement plans . . . for the conservation and survival of endangered species and threatened species . . . unless he finds that such a plan will not promote the conservation of the species."¹¹⁷

ESA section 7(a)(2)¹¹⁸ directs all federal agencies to carry out conservation¹¹⁹ programs for endangered and threatened species. Specifically:

Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such an agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Sec-

113. See *Defenders of Wildlife v. Andrus*, 428 F. Supp. 167, 170 (D.D.C. 1977) ("[u]nder the Endangered Species Act, the agency has an affirmative duty to increase the population of protected species"); *Connor v. Andrus*, 453 F. Supp. 1037, 1042 (W.D. Tex. 1978) ("[FWS] should focus attention on affirmative means of restoring the [species]. . ."); *Sierra Club v. Clark*, 577 F. Supp. 783, 789 (D. Minn. 1984), *aff'd in part, rev'd in part*, 755 F.2d 608 (8th Cir. 1985) ("[f]rom both a plain reading of the Act and research into its legislative history, this court concludes that the Secretary [of the Interior] has an affirmative duty to bring the wolf population to a point where the protections of the Act are no longer needed").

114. *Defenders of Wildlife v. Andrus*, 428 F. Supp. at 170. "[S]uch a duty is not met by promulgating regulations which do not attack the cause or causes of population depletion of a species." *Connor v. Andrus*, 453 F. Supp. at 1041.

115. *Palila v. Hawaii Dep't of Land & Nat. Resources*, 471 F. Supp. 985, 988 (D. Haw. 1979), *aff'd*, 639 F.2d 495 (9th Cir. 1981). See also *Palila v. Hawaii Dep't of Land & Nat. Resources*, 649 F. Supp. 1070 (D. Haw. 1986), *aff'd*, 852 F.2d 1106 (9th Cir. 1988).

116. 471 F. Supp. at 985, 988 (9th Cir. 1981). See also *Palila v. Hawaii Dep't of Land & Nat. Resources*, 649 F. Supp. 1070 (D. Haw. 1986).

117. 16 U.S.C. § 1533(f)(1) (1988). On April 21, 1981, FWS adopted a revised Recovery Planning Guidelines Manual [hereinafter RECOVERY MANUAL] now used by all FWS offices in tracking recovery tasks, budget review, implementation schedules, etc. U.S. FISH AND WILDLIFE SERVICE, OFFICE OF ENDANGERED SPECIES, RECOVERY PLANNING GUIDELINES (1985); see 48 Fed. Reg. 43,098 (1983) (announcement of FWS approval of the RECOVERY MANUAL); see also U.S. FISH AND WILDLIFE SERVICE, ENDANGERED SPECIES TECHNICAL BULL. 1 (May, 1981).

118. 16 U.S.C. § 1536(a)(2) (1988).

119. See *supra* notes 112-113 and accompanying text.

retary, after consultation as appropriate with affected States, to be critical¹²⁰

This section applies only to species which have been listed as endangered or threatened under the ESA.¹²¹

The ESA provides a three-step process to ensure agency compliance¹²² with section 7(a)(2).¹²³ First, before taking a proposed action, a federal agency must inquire of the Secretary whether any threatened or endangered species may be present in the area of the proposed action.¹²⁴ Second, if the answer is affirmative, the agency proposing action must prepare a "biological assessment"¹²⁵ to determine whether the species is likely to be affected by the proposed action.¹²⁶ Third, if the assessment determines a threatened or endangered species is likely to be affected, an agency must consult with FWS before proceeding with the proposed action.¹²⁷

After initiating this three-step process, an agency proposing action shall not "make any irreversible or irretrievable commitment of resources" which would foreclose alternative action not likely to jeopardize the existence of an endangered species.¹²⁸ After consultation, the Secretary shall issue a written biological opinion.¹²⁹ This opinion should address the likely impact of the proposed action on the species, a summary of authority for such an opinion, and reasonable alternatives to the proposed project to protect the species.¹³⁰

120. 16 U.S.C. § 1536(a)(2) (1988). 16 U.S.C. § 1532(5)(A) defines "critical habitat" as the specific areas within which are found the biological or physical features essential to the conservation of the species. "[T]o the maximum extent prudent . . ." the Secretary of the Interior is to designate a critical habitat concurrent with the listing of a species under the ESA. 16 U.S.C. § 1533(a)(3) (1988).

121. *Wilson v. Block*, 708 F.2d 735 (D.C. Cir. 1983); *Friends of Endangered Species, Inc. v. Jantzen*, 20 E.R.C. 1811 (D. Cal. 1984), *aff'd*, 760 F.2d 976 (9th Cir. 1985). Thus, ESA section 7(a)(2) does not apply to species "proposed for listing." See *infra* note 134 and accompanying text.

122. Designation of a critical habitat will be set aside if arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law. *Enos v. March*, 769 F.2d 1363 (9th Cir. 1985); *Cabinet Mountains Wilderness v. Peterson*, 510 F. Supp. 1186 (D.D.C. 1981), *aff'd*, 685 F.2d 678 (D.C. Cir. 1982); *Friends of Endangered Species, Inc. v. Jantzen*, 760 F.2d 976 (9th Cir. 1985); *Environmental Coalition of Broward Co. v. Myers*, 831 F.2d 984 (11th Cir. 1987). When an agency has committed a substantial procedural violation of the ESA, a proposed action will be enjoined. *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985).

123. See *Enos v. March*, 769 F.2d 1363 (9th Cir. 1985); *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985).

124. 16 U.S.C. § 1536(c)(1) (1988).

125. A biological assessment may be included in an environmental impact statement (EIS) or environmental assessment prepared under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321-4370 (1988 & Supp. 1991).

126. 16 U.S.C. § 1536(c)(1) (1988).

127. *Id.* § 1536(c)(2).

128. *Id.* § 1536(d). Once FWS issues a biological opinion, this section no longer applies. *North Slope Borough v. Andrus*, 486 F. Supp. 332 (D.D.C. 1980), *aff'd in part, rev'd in part on other grounds*, 642 F.2d 589 (D.C. Cir. 1980).

129. 16 U.S.C. 1536(b) (1988).

130. *Id.*; see *North Slope Borough v. Andrus*, 486 F. Supp. 332 (D.D.C. 1980). The

If this biological opinion concludes a proposed action would jeopardize a listed species or destroy or adversely modify critical habitat,¹³¹ the action may not go forward unless the Secretary proposes an alternative which avoids such jeopardization, destruction, or adverse modification.¹³² If, however, the biological opinion concludes the proposed action is permissible under ESA section 7(a)(2), the Secretary is to provide to an agency proposing action a "written statement" under section 7(b)(4).¹³³ This written statement should set forth reasonable measures considered necessary or appropriate to minimize incidental taking of threatened or endangered species, and terms and conditions which must be met in implementing such measures.

ESA section 7(a)(3)¹³⁴ requires federal agencies to minimize danger to species "proposed for listing" as endangered. In addition, this section provides as follows:

Each Federal agency shall confer with the Secretary on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under section 1533 of this title or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.¹³⁵

Agencies, however, are not required to comply with the section 7(d)¹³⁶ limitation on resource commitments when a species is merely proposed for listing as threatened or endangered.¹³⁷

Thus, the listing of a species under the ESA has significant ramifications on federal agency duties. One such duty is recovery of the Northern Rocky Mountain Wolf.

C. The Northern Rocky Mountain Wolf Recovery Plan

In accordance with ESA section 2,¹³⁸ FWS appointed the Recovery Team in 1974, to develop a recovery plan for the Northern Rocky

adequacy of such a biological opinion is subject to the arbitrary and capricious standard of judicial review. *Romero Barcel v. Weinberger*, 18 E.L.R. 20,374 (D.P.R. 1981).

131. *See supra* note 120.

132. 16 U.S.C. § 1536(b)(3)(A) (1988). "Section 7 does not give the Department of the Interior a veto over actions of other federal agencies, provided that consultation has occurred." *National Wildlife Federation v. Coleman*, 529 F.2d 359 (5th Cir.), *re-hearing denied*, 532 F.2d 1375, *cert. denied*, 429 U.S. 979 (1976); *accord*, *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987).

133. 16 U.S.C. § 1536(b)(4) (1988). Any incidental taking in compliance with the specified terms and conditions in the written statement is not considered a taking of such species in violation of the ESA. *Id.* § 1536(o)(2).

134. *Id.* § 1536(a)(3).

135. *Id.* § 1536(a)(4).

136. *See supra* note 128 and accompanying text.

137. *Enos v. Marsh*, 769 F.2d 1363 (9th Cir. 1985); *Wilson v. Block*, 708 F.2d 735 (D.C. Cir. 1983).

138. 16 U.S.C. § 1531(f) (1988).

Mountain Gray Wolf.¹³⁹ By 1980, the Recovery Team had assembled necessary data into a draft Northern Rocky Mountain Wolf Recovery Plan.¹⁴⁰ The draft Recovery Plan was distributed to various agencies, environmental and livestock associations, and wolf experts for comment and revision.¹⁴¹ On August 3, 1987, after seven years of review and revision, the FWS Deputy Regional Director in Denver, Colorado approved the final version of the Recovery Plan.¹⁴²

The Recovery Plan adopts strategies for bringing the wolf back from the brink of extinction in the northern Rocky Mountains. Recovery Plan rationale is that "[e]stablishment of three geographically separate [wolf] populations would offer some assurance that one or two populations would survive in the case of an unexpected catastrophic event."¹⁴³ Thus, wolf recovery under this plan required selection of three areas within the northern Rocky Mountain region.

Proposed wolf reestablishment raised immediate concerns regarding human interaction with the wolf. Traditionally, Americans hated the wolf, fearing it as an evil, dangerous, uncontrollable, almost devilish beast.¹⁴⁴ So pervasive was this hatred at one time that strictly scientific works mixed science and folklore.¹⁴⁵ Recorded experiences, however, suggest wolves do not pose an actual human threat, and, in fact, avoid humans.¹⁴⁶ No healthy¹⁴⁷ wolf has seriously injured a North

139. 1989 ANNUAL REPORT, *supra* note 28, at 3. The Northern Rocky Mountain Wolf Recovery Team had the following members: John Faulkner (stockman), Dennis Flath (Montana Department of Fish, Wildlife and Parks), Bob Gale (U.S. Forest Service), Dan Hinckley (Bureau of Land Management), Cliff Martinka (NPS), John Varley (NPS), Bart O'Gara (team leader: FWS), Robert Ream (University of Montana), Mike Schlegel (Idaho Department of Fish and Game), Robert Turner (National Audubon Society) and John Weaver (U.S. Forest Service).

140. RECOVERY PLAN, *supra* note 11.

141. Harry Bader, *Wolf Conservation: The Importance of Following Endangered Species Recovery Plans*, 13 HARV. ENVTL. L. REV. 517, 523 (1989); see WOLVES FOR YELLOWSTONE, *supra* note 46, at 2.

142. RECOVERY PLAN, *supra* note 11.

143. *Id.* at 19-20. In addition to addressing the issue of human interaction, the Recovery Plan accounts for numerous ecological considerations including physical characteristics, population biology and dynamics, movements and territories, predation, habitat and behavior. *Id.* app. 3 at 62-76.

144. LOPEZ, *supra* note 24, at 203. Most Native Americans did not share this hatred. See *supra* notes 22-24 and accompanying text. Even though biologically unfounded, hatred and folklore concerning the wolf had much to do with extreme predator control programs throughout the United States described *supra* notes 41-53 and accompanying text.

145. LOPEZ, *supra* note 24, at 203. Cf. ADOLPH MURIE, THE WOLVES OF MOUNT MCKINLEY (Nat'l Park Serv. Fauna Ser. No. 5, 1944) (styled the first "unbiased ecological treatise on wolves." RECOVERY PLAN, *supra* note 11, at 10).

146. MURIE, *supra* note 145; D. PIMLOTT, ET AL., THE ECOLOGY OF THE TIMBER WOLF IN ALGONQUIN PROVINCIAL PARK (Ontario Dep't of Lands & Forests, 1969); L. CARBYN, ECOLOGY AND MANAGEMENT OF WOLVES IN RIDING MOUNTAIN NATIONAL PARK, MANITOBA (Can. Wildlife Serv. Rep., 1980); ROLF PETERSON, THE ROLE OF WOLF PREDATION IN A MOOSE POPULATION DECLINE 329-33 (U.S. Nat'l Park Serv. Proc. Ser. No. 5, vol. 1, 1979).

147. Rabid wolves in Alaska have reportedly been responsible for the deaths of at least three persons. Telephone Interview with A. Dood, Endangered Species Act Coor-

American for as long as such records have been kept.¹⁴⁸ Thus, the challenge posed by reestablishing wolves in the United States is "to protect wolves from humans, rather than people from wolves."¹⁴⁹

Given the above challenge, the Recovery Team set out initially to select three wolf recovery areas. Selection criteria for recovery areas included: (1) a substantial population of large ungulates to serve as a prey base, (2) at least three thousand square miles of designated wilderness (or similar) area, (3) a maximum ten percent private ownership of the lands, (4) absence, if possible, of livestock grazing, and (5) isolation from populated or heavy-use recreational areas to protect wolves from human disturbance.¹⁵⁰ The Recovery Team found three recovery areas meeting these criteria:¹⁵¹ the Selway-Bitterroot Mountains/Salmon River Breaks ecosystem in central Idaho; the Bob Marshall ecosystem in northwestern Montana, including Glacier National Park and the Bob Marshall Wilderness Area; and the Greater Yellowstone Area, including Yellowstone National Park.¹⁵²

The Recovery Plan proposes eventual removal of the wolf from ESA endangered or threatened species lists.¹⁵³ This objective will be met by establishing a minimum of ten breeding pairs in each of the three recovery areas, for a minimum of three successive years.¹⁵⁴ Since wolves rarely form a pack outside the family relationship, recovery in central Idaho and northwestern Montana areas depends on natural migration of existing packs from Canada.¹⁵⁵ When the Recovery Plan was developed, FWS considered natural wolf migration from Canada to Yellowstone National Park "unlikely" because of geographical isolation and substantial land and road systems development.¹⁵⁶ Consequently, FWS originally anticipated Park recovery would require active transplantation, rather than natural migration, of existing

dinator, Mont. Fish, Wildlife & Parks (Aug. 1, 1991).

148. MECH, *supra* note 10.

149. RECOVERY PLAN, *supra* note 11, at 10.

150. *Id.* at 22. These criteria are based on biological factors including wolf habitat requirements, ecology, and behavior, and are summarized as follows: 1) sufficient year-round prey base of ungulates and alternate prey, 2) suitable and somewhat secluded denning and rendezvous sites (nesting and gathering areas occupied by packs during summer and early fall after the spring whelping den is abandoned), and 3) sufficient space with minimal exposure to humans. *Id.* at 7-10, 62-76. The last of these factors, human intervention, while not technically "biological" but rather "social," nonetheless was an extremely important criterion in selecting recovery areas. See *infra* notes 314-323 and accompanying text.

151. RECOVERY PLAN, *supra* note 11, at 22.

152. *Id.* at 22-26.

153. *Id.* at 12.

154. *Id.* Eventually, the wolf would be classified as a game or furbearing animal in Wyoming, Montana, and Idaho. This classification permits regulated hunting or trapping of wolves for management and protection purposes. *Id.* at 19-20, 41.

155. *Id.* at 24-25. Natural migration is already responsible for the establishment of wolf pack activity in Montana. See *supra* notes 91-100 and accompanying text.

156. RECOVERY PLAN, *supra* note 11, at 24-25. Since 1987 the likelihood of natural wolf migration from Canada into Yellowstone has increased. Wolves continue to migrate southward through Montana. See *supra* notes 84, 94.

breeding pairs into the area.¹⁵⁷ As discussed below, the method by which wolves eventually reenter the Park impacts directly upon experimental population status of the wolf.

D. Yellowstone National Park Wolves as an Experimental Population

In 1982, Congress adopted the "experimental population" designation in an effort to promote species reintroduction by allowing increased management flexibility¹⁵⁸ in areas where there is local opposition to recovery.¹⁵⁹ ESA section 10(j)¹⁶⁰ defines an "experimental population" as "any population (including any offspring arising solely therefrom) authorized by the Secretary for release under [16 U.S.C. § 1539(j)(2)], but only when, and at such times as, the population is wholly separate geographically from non-experimental populations of the same species."¹⁶¹

Under section 10(j) definition, any wolves naturally migrating

157. RECOVERY PLAN, *supra* note 11, at 24-25. As a priority two task on the implementation schedule of the Recovery Plan, active translocation of wolves into the Yellowstone area is required in order to protect the entire species population from extinction. See OFFICE OF ENDANGERED SPECIES, FWS, RECOVERY PLANNING GUIDELINES 8-9 (1985). Relying on the priority two designation and the mandate of conservation under 16 U.S.C. 1531(b), one commentator argues that failure to carry out reintroduction of wolves into the Park is a *prima facie* violation of the ESA. See Bader, *supra* note 141, at 525. The subject of whether the remedy for delayed implementation of the reintroduction plan is more appropriate for judicial mandate or administrative or congressional action has been considered in the context of contemporary federalism. See Keiter & Holscher, *supra* note 73. Nonetheless, it is clear that if any of the guidelines and actions by FWS (acting as the Scientific Authority under the Convention), *supra* note 105 and accompanying text, are arbitrary and capricious or not in accordance with the ESA (including conformity with the Convention), or are unreasonably delayed, federal courts may invalidate them or set them aside under the Administrative Procedure Act. 5 U.S.C. §§ 551-559, 701-706 (1978); see ENVIRONMENTAL RIGHTS, *supra* note 36, § 13:21, at 1872 n.55.

At least one conservationist group agrees that federal court is the appropriate forum to resolve the issue of unreasonable delay of the implementation of the Recovery Plan. On May 3, 1991, the Defenders of Wildlife served a Sixty Day Notice of Intent to Sue Under the Endangered Species Act on John F. Turner (Director, FWS), James M. Ridenour (Director, NPS), and Manuel Lujan, Jr. (Secretary of the Interior). The group alleges that "[b]y failing promptly to proceed with wolf re-introduction in the the (sic) Northern Rockies, [the agencies] have violated the Endangered Species Act." Defenders of Wildlife filed its complaint for an injunction mandating implementation of the Recovery Plan against the above defendants. *Defenders of Wildlife v. Lujan*, No. 91-1993-LFO (D.D.C. Aug. 8, 1991). On August 28, 1991, the Rocky Mountain Legal Foundation, on behalf of Wyoming, Montana, and Idaho stockgrowers associations and public lands councils, filed its Motion to Intervene in this suit. *Id.* Such a litigious approach has been crucial to resolution of wolf recovery issues under the ESA. See generally O'Neil, *supra* note 55.

158. See *infra* notes 337-354 and accompanying text for a discussion of the management flexibility of an experimental population.

159. H.R. REP. No. 567, 97th Cong., 2d Sess. 33-34 (1982), reprinted in 1982 U.S.C.A.N. 2708, 2833-34.

160. Endangered Species Act Amendments of 1982, 16 U.S.C. § 1539(j)(1) (1988).

161. See *infra* notes 172-180 and accompanying text and part IV.E for a discussion of the legal consequences under the ESA of an experimental classification.

into the Park would terminate the availability of experimental status for Park wolves as a whole.¹⁶² Every day of delay in implementing Park wolf recovery is another day that wolves may naturally migrate into the Yellowstone area. This migration thereby destroys any management flexibility an experimental designation would otherwise afford. As wolves naturally reestablish themselves in the northern Rocky Mountain region, migration into the Park becomes a more distinct possibility.¹⁶³ In fact, in the summer of 1991, FWS began investigating reported wolf sightings in the Beaverhead National Forest, south of Ennis, Montana, 115 miles northwest of the Park boundary.¹⁶⁴

Prior to designating a population as experimental, the Secretary must consider: whether reintroduction will further the conservation of the species, the geographic location of the population, and if the experimental population is essential or non-essential.¹⁶⁵ Experimental population designation procedures and requirements must be addressed during the promulgation of rules for a specific experimental population.¹⁶⁶ These designation requirements must also be addressed during preparation of an EIS and other documents under NEPA.¹⁶⁷

162. Although the geographical limitation under section 10(j) might operate effectively with experimental populations such as the sea otter or the red wolf, which are physically isolated, the limitation is ambiguous in the Rocky Mountain wolf situation. Based on current Montana wolf location estimates, there can be no geographical isolation of a Yellowstone wolf population. See *supra* notes 84, 94 and accompanying text. A 1991 report by the Wolf Management Committee suggests no geographical distinctions be made other than distinguishing between existing breeding pairs and all other wolves in Idaho, Montana, and Wyoming. See *infra* notes 223-247 for a discussion of the Wolf Management Committee report. By proposing the entire tri-state area (with the exception of existing breeding pairs) be designated experimental, the Wolf Management Committee proposal effectively eliminates the probable effect of a strict application of section 10(j) by which levels of management would vary significantly between experimental populations and those not experimental.

163. See *supra* notes 99-100 and accompanying text. "If [wolves] get within 100 miles of Yellowstone, they will eventually populate it because it is prime habitat with a glut of game such as elk, [John Varley, NPS] said." GREAT FALLS TRIB., October 7, 1991, at 4B.

164. *Young wolf caught near Fortine*, GREAT FALLS TRIB., July 27, 1991, at 9A. These investigations will be continuing through winter, 1992. Nevertheless, Ennis wolf sightings are "probable, but not confirmed." Telephone Interview with Dr. Steven H. Fritts, Rocky Mountain Wolf Coordinator (Oct. 21, 1991).

165. 50 C.F.R. § 17.81 (1990).

166. Because the Greater Yellowstone Area encompasses two FWS regions, signatures of both regional directors are required for adoption of any rules related to a Park experimental wolf population. See QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS 3-5 (unpublished report prepared for the Wolf Management Committee, 1991, on file with author), for a discussion of the experimental designation process.

167. See *supra* note 125. A private action can be brought for judicial review of agency compliance with NEPA under the Administrative Procedure Act. See generally *supra* note 157. *National Wildlife Federation v. United States Forest Service*, [1985] 15 Env'tl. L. Rep. (Env'tl. L. Inst.) 20,931 (D. Or. July 2, 1985); accord *Wade v. Lewis*, [1982] 12 Env'tl. L. Rep. (Env'tl. L. Inst.) 21,151 (N.D. Ill. Jan. 28, 1982). A full discussion of the preparation of an EIS under NEPA is beyond the scope of this article. For a complete analysis of the topic, see M. BAKER ET AL., ENVIRONMENTAL IMPACT STATEMENTS: A GUIDE TO PREPARATION AND REVIEW (1977); See also ENVIRONMENTAL RIGHTS,

Before ESA experimental designation amendments took effect in 1982, FWS had the ability to reintroduce threatened and endangered species into an unoccupied, historic range. Nonetheless, many attempts to do so met staunch resistance by local residents and ultimately failed.¹⁶⁸ In an attempt to address such opposition, the experimental designation allows FWS increased management flexibility of reintroduced populations.¹⁶⁹ In addition, experimental species shall not be treated as "endangered," regardless of donor population classification.¹⁷⁰ Conservation and management regulations may be tailored to specific experimental population areas of recovery, local conditions, and local opposition.¹⁷¹

According to the Recovery Plan, any translocated Park wolf population would be classified as an experimental population under the ESA.¹⁷² Because experimental designation is exclusive to a translocated, as opposed to natural, Park wolf population, the reintroduction of wolves into the Yellowstone area presents unique management and control issues on which the remainder of this article focuses.

The Recovery Plan anticipates that a Park experimental wolf population may be a "non-essential" population¹⁷³ under the ESA.¹⁷⁴

supra note 36, §§ 5:5-5:7.

168. Because of the "jeopardy" prohibition of § 7 of the ESA, 16 U.S.C. § 1536(2) (1988), and the "taking" prohibition of § 9, 16 U.S.C. § 1538(1) (1988), FWS could not assuage concerns of other federal agencies, state and local governments, and private landowners that transplanted animals would interfere with future area management options. Management concerns led to local resistance and FWS withdrawal of transplantation operations such as the 1984 recovery of the red wolf (*Canis rufus*) in Kentucky and Tennessee. See QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS, *supra* note 166, at 1; 51 Fed. Reg. 41,790-96 (1986) (final determination of experimental population status for an introduced population of red wolves in North Carolina).

169. See *infra* part IV.E.

170. 16 U.S.C. § 1539(j)(2)(C) (1988); 50 C.F.R. § 17.82 (1990); see *Sierra Club v. Clark*, 755 F.2d at 617-18. For example, wolves translocated from Canada having no protection under the ESA would, upon being carried over the Yellowstone Park boundary and being designated an experimental population, receive protection under the ESA.

171. 16 U.S.C. § 1539(j)(2)(B) (1988); See QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS, *supra* note 166, at 1-2; RECOVERY PLAN, *supra* note 11, at 1-31. On August 27, 1984, FWS adopted regulations implementing the experimental status classification in general. 50 C.F.R. §§ 17.80-17.86 (1990). Current experimental populations include the red wolf, Delmarva fox squirrel, Colorado squawfish, woundfin, yellowfin madtom, southern sea otter, Guam rail, desert pupfish, and the Gila topminnow. RECOVERY PLAN, *supra* note 11, at 1-32; see Bass, *Return of the Red Wolf*, NATURE CONSERVANCY NEWS, June-July 1987, at 15-21. Specific Congressional action authorized the experimental sea otter reintroduction. Fish and Wildlife Programs: Improvement, Pub. L. No. 99-625, § 7, 100 Stat. 3500 (1986).

172. RECOVERY PLAN, *supra* note 11, at 25-27.

173. RECOVERY PLAN, *supra* note 11, at 26. The Recovery Plan does not determine whether "non-essential" status is appropriate for a Yellowstone population but anticipates that the issue should be determined during promulgation of special rules for the Yellowstone experimental population and the preparation of the EIS. Congress intended that most experimental populations would be considered "non-essential." H.R. CONF. REP. No. 835, 97th Cong., 2d Sess. 33-34 (1982), reprinted in 1982 U.S.C.A.N. 2860, 2874-75.

An experimental population is "non-essential" if loss of the population would not appreciably reduce the likelihood of a species' survival.¹⁷⁶ Conversely, a population is "essential" if loss of the population would significantly impact the chances for a species' survival.¹⁷⁶

The "essential/non-essential" distinction dictates levels of protection afforded by ESA section 7 "jeopardy" provisions.¹⁷⁷ Except in national wildlife refuges or national parks, "non-essential" experimental populations are treated as species "proposed to be listed," i.e. neither threatened nor endangered.¹⁷⁸ Thus, non-essential, experimental wolf populations outside the Park do not receive full protection under ESA section 7.¹⁷⁹ If the Secretary were to designate a Yellowstone experimental population as non-essential, only the wolves within the Park boundaries would be afforded the full protection of a threatened species under section 7 of the ESA.¹⁸⁰

E. Implementation of the Recovery Plan

Soon after FWS approval of the Recovery Plan in 1987, William Penn Mott, then NPS Director, prepared to implement wolf recovery.¹⁸¹ NPS authorized wolf biology research, took public opinion polls regarding reintroduction, and implemented a public education program on wolves.¹⁸² Almost immediately, NPS Recovery Plan implementation became enmeshed in controversy.

Local stockgrowers associations,¹⁸³ outfitters, hunters,¹⁸⁴ land de-

174. 16 U.S.C. § 1539(j)(2)(C)(i) (1988).

175. *Id.*

176. *Id.*; see QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS, *supra* note 166, at 2.

177. See *supra* notes 118-137 and accompanying text.

178. See *supra* notes 134-137 and accompanying text. "Essential" populations, whether inside or outside of a national park or wildlife refuge, receive full protection (including resource commitment limitations) as a threatened species under the jeopardy provisions of § 7 of the ESA. 16 U.S.C. § 1536 (1988).

179. See *supra* notes 134-137 and accompanying text.

180. See *supra* notes 118-134 and accompanying text; see also RECOVERY PLAN, *supra* note 11, at 26.

181. *Information to Return Gray Wolf to Yellowstone*, GREAT FALLS TRIB., Feb. 9, 1989, at 6A. Mott supported wolf recovery consistently since 1985, when he became NPS director. In the early stages of Recovery Plan implementation, Mott predicted recovery in the Park would require active translocation of wolves by capture and release. Frank Dunkle, former Director of FWS, did not agree. Dunkle predicted Park wolf recovery would occur within ten years by natural migration of wolves along the Continental Divide. *Dunkle: Wolf Reintroduction up to Parks*, GREAT FALLS TRIB., Jan. 13, 1988, at 7A.

182. Keiter & Holscher, *supra* note 73, at 42; see *Dunkle: Wolf Reintroduction up to Parks*, GREAT FALLS TRIB., Jan. 13, 1988, at 7A.

183. For example, the Montana Agricultural Coalition met in December, 1987 and unanimously opposed wolf recovery programs. *Ag Coalition Opposes Wolf Recovery*, GREAT FALLS TRIB., Jan. 10, 1988, at 5FR.

184. Sport hunters argued reintroduction could lead to closing of the late elk/buffalo hunting season near the Park. See *Marlenee Misstates Wolf Stance, Says Group*, GREAT FALLS TRIB., Jan. 21, 1988, at 7A.

velopers and other groups voiced concerns over wolf presence in recovery areas. In response, FWS recognized reintroduction could not go forward until it addressed these concerns.¹⁸⁵ Consequently, FWS promised local coalitions that reintroduction would be delayed until further studies addressed the issues raised by the groups.¹⁸⁶

By March, 1988, Secretary of the Interior Donald Hodel and the Reagan administration sided squarely with FWS and against the NPS position.¹⁸⁷ In 1988, a grassroots political movement developed to advance local opposition to national attention, and stall reintroduction for as long as possible.¹⁸⁸ Eventually, even Mott caved in to dilatory tactics.¹⁸⁹ James N. Ridenour, new NPS Director, halted the wolf edu-

185. Stockgrowers were opposed to wolf recovery because of the threat of wolf depredations on livestock. Outfitters and hunters worried over big game population losses due to wolf predation; land developers raised questions regarding prohibitions on development in and near the recovery areas. State and local governments raised management and control issues. Today, wolf opponents share similar concerns:

Wolves [do not respect] park, wilderness or recovery area boundaries. And when they leave those sacrosanct areas, they are intruding in the space of human inhabitants, be they farmer, rancher or individuals who forsake the urban rat race for a more peaceful life in a rural setting.

Consider this: Montana is losing population compared to the rest of the nation, so much in fact that [Montanans] are losing a congressional seat. California on the other hand is gaining population and a goodly number of congressional seats. Does it follow that the population of Montana is endangered and threatened and that we should gather some Californians and plant them in Montana?

Robert W. Demin, *Wolves Not Endangered*, MONT. FARMER-STOCKMAN, June, 1991, at 34.

186. See Steinhart, *A Wolf in the Eye*, AUDUBON, Jan., 1988, at 79, 83-86. In September, 1987, Dunkle promised timber industry "[t]he wolf stops at my desk . . ." *Dunkle Neutral on Wolves in Park*, GREAT FALLS TRIB., Feb. 8, 1988, at 3A. Dunkle promised all Wyoming Wool Growers Association in November 1987 that he would use delaying tactics if the reintroduction plan were implemented. *Interior Chief: No Wolves Over Opposition*, GREAT FALLS TRIB., Mar. 3, 1988, at 1A. See also, Bader, *supra* note 141, for an article addressing the issue of whether Dunkle's promises are an agency decision reviewable as a violation of the ESA.

187. Because of local community protests and uncertainty over wolf management and control, Hodel recommended to the administration stalling Recovery Plan implementation pending further study. *Interior Chief: No Wolves Over Opposition*, GREAT FALLS TRIB., Mar. 3, 1988, at 1A; see also *Information to Return Gray Wolf to Yellowstone Should Be . . .*, GREAT FALLS TRIB., Feb. 9, 1989, at 6A.

188. Although politicians from Wyoming, Idaho and Montana were uniformly opposed to reintroduction, Wyoming Senators Al Simpson and Malcolm Wallop led the opposition. The Wyoming senators reportedly appealed Mott's efforts to then Secretary of the Interior Donald Hodel who, in turn, directed Mott to suspend NPS implementation of an EIS. *Wolf Reintroduction Funds Approved*, GREAT FALLS TRIB., Aug. 1, 1990, at 10A; see *Information to Return Gray Wolf to Yellowstone Should Be . . .*, GREAT FALLS TRIB., Feb. 9, 1989, at 6A. In December, 1987, during the House debate on reauthorization of the ESA, Montana Representative Ron Marlenee informed the House of Representatives that the Montana Wildlife Federation opposed reintroduction. The Federation later denied Marlenee's representation and reported that it remained neutral on the issue pending environmental studies. *Marlenee Misstates Wolf Stance, Says Group*, GREAT FALLS TRIB., Jan. 21, 1988, at 7A.

189. "When asked why, at a hearing in March, 1989, the Park Service was not proceeding to fulfill its obligation to effect wolf recovery under the Endangered Species Act, Park service Director Mott replied that legislation is a 'political necessity' to enable the Park service to do its job." Letter from Utah Representative Wayne Owens and North Carolina Representative Claudine Schneider to Congress (May 19, 1989)(on

cation programs Mott had initiated¹⁹⁰

Soon thereafter, the grassroots political movement became national. Often, stalling tactics of those opposing reintroduction relied on the NEPA requirement¹⁹¹ that an EIS be issued prior to Recovery Plan implementation.¹⁹² Even though twelve years of investigation and reports went into the Recovery Plan, wolf opponents argued an EIS could not be developed until scientific studies addressed local concerns.

Thus, Park wolf reintroduction, though mandatory for species recovery, could be tabled indefinitely pending additional, lengthy investigation. For example, the House Committee for 1989 Interior appropriations approved EIS funding for Park wolf reintroduction.¹⁹³ Nevertheless, the Joint Interior Appropriations Committee promptly deleted this funding from the final Interior appropriations bill passed on September 8, 1988.¹⁹⁴ This action explicitly prohibited EIS preparation.¹⁹⁵ Instead, it appropriated \$200,000 for further studies on the impact of wolf recovery on Park wildlife.¹⁹⁶

file with author). See also Keiter & Holscher, *supra* note 73, at 43.

190. These education programs included public viewings of a video starring Robert Redford and pamphlet distribution, both of which favored reintroduction. The Montana Audubon Council took over distribution of the video and pamphlets. *Wolf 'Censorship' Allegation is Phony*, GREAT FALLS TRIB., Oct. 28, 1989, at 10A. Ridenour's "gag order" was the culmination of a congressional letter writing campaign led by Montana Senator Conrad Burns to NPS, the import of which was the "one-sidedness" of the education program in favor of wolf reintroduction and its prematurity pending studies by the Department of the Interior. *Wolf Education Halted*, GREAT FALLS TRIB., Oct. 16, 1989, at 8A; see also *Congressional Letters Halted Wolf Education*, GREAT FALLS TRIB., Nov. 6, 1989, at 7A. The Montana Farm Bureau produced its own video (without Robert Redford) styling the wolf as the most destructive predator in North America. *Wolf 'Censorship' Allegation is Phony*, GREAT FALLS TRIB., Oct. 28, 1989, at 10A.

191. See *supra* note 167 and accompanying text.

192. The Recovery Plan provides that an EIS would be necessary to determine specific reintroduction options and regulations such as whether the population be designated "essential" or "non-essential." See *supra* notes 173-180 and accompanying text. See also RECOVERY PLAN, *supra* note 11, at 25-30.

193. H.R. CONF. REP. NO. 862, 100th Cong., 2d Sess. 14-15 (1988).

194. *Id.*; see GREAT FALLS TRIB., Sept. 11, 1988, at 8G.

195. Department of the Interior and Related Agencies Appropriations Act, 1989, Pub. L. No. 100-446, 102 Stat. 1774.

196. *Id.* In appropriating funds for 1989, the Senate-House Interior Appropriations Committee concluded as follows:

The managers agree that the return of the wolf to Yellowstone NP is desirable. There are a number of concerns about the reintroduction and \$200,000 has been included to study questions which have been raised. The managers believe the studies should address, but not be limited to the following:

1. The issue of whether wolves would or would not be controlled either within or without the Park;
2. How a reintroduced population of wolves may affect the prey base in Yellowstone NP and big game hunting in areas surrounding the park;
3. Would a reintroduced population of wolves harm or benefit grizzly bears in the vicinity of the park;
4. Clarification and delineation of wolf management zone boundaries of reintroduction; and

Even prior to the 1989 Interior appropriations, proposed Park wolf reintroduction began to attract national and congressional attention. In September, 1987, Utah Representative Wayne Owens introduced a bill directing NPS to restore wolves to the Park within three years of its enactment.¹⁹⁷ Congress eventually rejected Owens' proposal.¹⁹⁸ Likewise, the Bush administration and Secretary of the Interior Manuel Lujan acknowledged the national importance of the reintroduction issue.¹⁹⁹ Nonetheless, this administration continued to stall reintroduction by refusing to take a position one way or the other on the Recovery Plan pending reports authorized in the 1989 appropriations bill.²⁰⁰

On June 28, 1989, after the Bush administration made it clear that an EIS would be delayed, Representative Owens proposed new legislation.²⁰¹ This proposal provided that the Secretary prepare an

5. An experienced wolf coordinator with the FWS will oversee the program in full cooperation with the NPS.

H.R. CONF. REP. No. 862, 100th Cong., 2d Sess. 14 (1988). Congress further required FWS and NPS to complete a report on these studies by September 1989. *Information to Return Gray Wolf to Yellowstone Should Be . . .*, GREAT FALLS TRIB., Feb. 9, 1989, at 6A. In May, 1990, FWS and NPS presented their joint report, concluding wolf reintroduction will not adversely impact Park wildlife and big game populations. See WOLVES FOR YELLOWSTONE, *supra* note 46. Item 5 above was met when Dr. Steven H. Fritts was appointed Rocky Mountain Wolf Coordinator. *Id.* at 3.

197. H.R. 3387, 100th Cong., 1st Sess. (1987). "With that [H.R. 3387] effort I [Rep. Owens] attempted to bring exposure to direct political interference on the administration of our nation's prime natural treasures—the National Parks. The Park Service and the Fish and Wildlife Service are failing to protect their major charges—in this case, they are obliged to begin restoring the wolf to Yellowstone." Statement of Congressman Wayne Owens on Gray Wolf Restoration to Yellowstone National Park and the Central Idaho Wilderness Areas as Contemplated under S. 2674, before the Senate Committee on Energy and Natural Resources, Subcommittee on Public Lands (Sept. 19, 1990) [hereinafter OWENS S. 2674 STATEMENT].

198. *Id.* See GREAT FALLS TRIB., June 6, 1988, at 1A.

199. *Administration Seeks More Data for Wolf Decision*, GREAT FALLS TRIB., Mar. 10, 1989, at 4A; see *Information to Return Gray Wolf to Yellowstone Should Be . . .*, GREAT FALLS TRIB., Feb. 9, 1989, at 6A.

200. *Administration Seeks More Data for Wolf Decision*, GREAT FALLS TRIB., Mar. 10, 1989, at 4A; see *supra* note 196. John Turner, current FWS director, agrees with the administration that "good, solid biological information" is required before implementing reintroduction. Keiter & Holscher, *supra* note 73, at 42.

201. H.R. 2786, 101st Cong., 1st Sess. (1989). In support of this legislation, Representative Owens stated the following:

It is disturbing, but clear, that a strong and unequivocal directive to the administering agencies is necessary.

This legislation has the enthusiastic support of the entire national conservation community. It would clear the political roadblocks and direct that the NEPA process, a prerequisite to wolf reintroduction, be allowed to proceed and produce a timely environmental impact statement analyzing all factors relating to the wolves' return to Yellowstone.

Intelligence, tempered by wisdom, is man's greatest tool . . . In [Aldo] Leopold's words: The last word in ignorance is the man who says of a plant or animal, "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. To keep every cog and wheel is the first precaution of intelligent tinkering.

Letter from Rep. Wayne Owens and Rep. Claudine Schneider to Congress (May 19, 1989) (on file with author).

EIS by December 31, 1991, with the participation of Wyoming, Montana, and Idaho.²⁰² Specifically, Owens proposed that the EIS address issues such as migration of wolves from recovery areas, state wildlife management objectives, and the possibility of an experimental designation of a Park wolf population.²⁰³ Soon after Owens made his proposal, NPS Director James Ridenour announced his opposition.²⁰⁴ Likewise, conservationist groups reported their opposition to the bill, arguing it could set dangerous precedent by "skirting" the ESA.²⁰⁵ Nevertheless, the House Interior Subcommittee on National Parks and Public Lands held an eight hour hearing regarding Owens' proposal.²⁰⁶ Congress, once again, ultimately rejected this bill.²⁰⁷

Compromise legislation proposed in 1989, by Idaho Senator James McClure, also met failure. The McClure bill provided for recovery of three, not ten, mating wolf pairs in the Park and central Idaho.²⁰⁸ Wolves leaving recovery areas would no longer be subject to federal control, but could be shot or trapped so long as the animals were replaced.²⁰⁹ Despite eventual Congressional rejection, McClure's proposal had received initial support from well renowned wolf expert David Mech.²¹⁰

Despite the efforts by Representative Owens and Senator McClure, Congress did not authorize wolf reintroduction or EIS preparation in 1989. Rather, in October, 1989, the Senate-House Interior Appropriations Conference Committee passed the 1990 Interior appropriations bill.²¹¹ This Act stalled EIS implementation, but earmarked an additional \$175,000 to continue reintroduction studies.²¹²

In May, 1990, the Department of the Interior released *Wolves for*

202. H.R. 2786, 101st Cong., 1st Sess. (1989).

203. *Id.*

204. *Ridenour Opposes Yellowstone Wolf Reintroduction Bill*, GREAT FALLS TRIB., July 21, 1989, at 5A.

205. *Conservationists Say Wolf Plan Skirts Species Act*, GREAT FALLS TRIB., Feb. 19, 1990, at 7A. The groups included the Sierra Club, National Parks and Conservation Association, Greater Yellowstone Coalition, and the Idaho Conservation League. These organizations argued the ESA and ESA regulations provided ample guidance for EIS implementation. *Id.*

206. See OWENS S. 2674 STATEMENT, *supra* note 197, at 3.

207. *Id.*

208. H.R. 2535, 100th Cong., 1st Sess. (1988).

209. *Id.* See *Wolf Reintroduction EIS Stalled*, GREAT FALLS TRIB., May 11, 1989, at 10C.

210. Mech predicted McClure's proposal would be successful and that within five years of the legislation, wolves would be roaming in Yellowstone Park. *Mech Predicts Wolves in Yellowstone in Five Years*, GREAT FALLS TRIB., June 3, 1989, at 7A.

211. Department of the Interior and Related Agencies Appropriations Act, 1990, Pub. L. No. 101-121, 103 Stat. 701 (1989).

212. *Id.* See *Wolf Reintroduction EIS Stalled*, GREAT FALLS TRIB., Nov. 25, 1989, at 11A. As in 1988, the House Interior Subcommittee on proposal by Representative Owens initially approved funding for an EIS. Once again, the Senate stipulated the funds should go to further studies and not an EIS. See *supra* notes 195-196 and accompanying text; see also OWENS S. 2674 STATEMENT, *supra* note 197, at 3.

Yellowstone,²¹³ the final report on studies Congress had authorized almost two years earlier.²¹⁴ This report supported recovery of an experimental Park wolf population as recommended by the Recovery Plan.²¹⁵ In addition, this extensive work discussed built-in management flexibility of a Park experimental population.²¹⁶

Shortly after the release of the *Wolves for Yellowstone* Report, on May 22, 1990, Senator McClure introduced a revised bill.²¹⁷ This new proposal directed the Secretary of the Interior to reintroduce three breeding pairs each into "Core Zone" recovery areas in the Park and central Idaho.²¹⁸ Under this proposal, any wolf outside designated "core" areas, but within Wyoming, Montana, or Idaho would no longer be afforded the protection of an endangered or threatened species under the ESA.²¹⁹ In this manner, McClure's proposal did not rely on experimental designation.

At a September 19, 1990 hearing on McClure's revised legislation, officials from FWS, NPS, and the Forest Service testified that Park wolf reintroduction should be accomplished as an experimental population under the ESA rather than by some other method such as the one proposed in the bill.²²⁰ Despite eventual Congressional rejection of this proposal, the Senate for the third consecutive year amended House Interior Appropriations legislation that had earmarked funds for an EIS.²²¹ Again, there were no EIS funds. Instead, in late Octo-

213. *WOLVES FOR YELLOWSTONE*, *supra* note 46.

214. *See supra* note 196 and accompanying text.

215. *See generally* *WOLVES FOR YELLOWSTONE*, *supra* note 46.

216. *Id.*

217. S. 2674, 101st Cong., 2d Sess. § 1 (1990); *see Legislation Expected to Move Wolves Into Yellowstone*, GREAT FALLS TRIB., May 22, 1990, at 7A; *see also McClure Asks Wolf Recovery*, GREAT FALLS TRIB., May 23, 1990, at 6B.

218. S. 2674, 101st Cong., 2d Sess. § 2 (1990).

219. *Id.* § 5.

220. In addition to continued political opposition to recovery by politicians and local associations from Wyoming, Montana, and Idaho, conservationist groups such as the National Wildlife Federation, Defenders of Wildlife, and Greater Yellowstone Coalition also opposed S. 2674 at the hearings in Washington, D.C.. Telephone Interview with Hank Fischer, Defenders of Wildlife (July 22, 1991); *cf. Keiter & Holscher, supra* note 73, at 49. *See also Battle Lines Drawn of Wolf-Reintroduction Bill*, GREAT FALLS TRIB., Sept. 21, 1990, at 8A. During the S. 2674 hearings, Representative Owens noted the following:

Notwithstanding the efforts of valiant leaders of the Park service and Fish and Wildlife service and their very excellent and positive report to Congress on restoring the wolf to Yellowstone; notwithstanding the long hours and effort put forth by members of the House and Senate and their staffers and Conservation groups; notwithstanding the considerable progress we have made on this issue we have witnessed a failure by public agencies entrusted with the natural and wildlife resources of this nation because members of the House and Senate have politically precluded them from doing their jobs as those professionals have interpreted their responsibilities.

My [Rep. Owens] legislation, H.R. 2786 and S. 2674 should not be necessary.

Politics has been substituted for national environmental and wildlife policy.

OWENS S. 2674 STATEMENT, *supra* note 197, at 4.

221. Dep't of the Interior and Related Agencies Appropriations Act, 1991, Pub. L. No. 101-512, 1990 U.S.C.A.N. (104 Stat.) 1915.

ber, 1990, the Senate-House Interior Appropriations Committee authorized \$375,000 for the development of a Yellowstone National Park/Central Idaho wolf reintroduction and management report.²²²

F. The Wolf Management Committee and EIS Funding

On November 5, 1990, Congress directed the Secretary of the Interior to appoint a Wolf Management Committee (WMC).²²³ Congress required WMC to present a report concerning Park/Central Idaho wolf reintroduction and management by May 15, 1991.²²⁴ On December 18, 1990, Secretary Lujan announced the WMC appointees,²²⁵ only to be later accused by the governors of Montana and Idaho of "stacking the odds" in favor of recovery.²²⁶ Almost immediately, WMC personnel debated which issues they were to address and the deadline under which they were operating.²²⁷

222. *Id.*

223. Pub. L. No. 101-512, § 218 (Nov. 5, 1990).

224. *Id.*

225. *Marlenee Compares Wolves to Cockroaches*, GREAT FALLS TRIB., Dec. 21, 1990, at 1B. The members of the Management Committee were as follows:

Galen L. Buterbaugh, FWS (Chairman)

George Bennett, Gem State Hunter's Association

Jerry M. Conley, Idaho Department of Fish and Game

K.L. Cool, Montana Department of Fish, Wildlife and Parks

Thomas J. Dougherty, National Wildlife Federation

Hank Fischer, Defenders of Wildlife

James H. Magagna, American Sheep Industry Association

Lorraine Mintzmyer, NPS

John W. Mumma, U.S. Forest Service

Francis E. Petera, Wyoming Game and Fish Department

WOLF MANAGEMENT COMM. REPORT, 101st Cong., 2d Sess. (1991) [hereinafter WMC REPORT].

226. Noting that K.L. Cool may not have time to participate and that the state opposed reintroduction, Montana State Governor Stan Stephens wrote Secretary Lujan:

I also have grave concerns about the current membership of the Wolf Management Committee supporting the State's position. In fact, there is concern that a committee majority is predisposed to a wolf reintroduction plan which won't recognize states [sic] rights and will ignore the impacts wolves would have outside park boundaries. Please be aware of a level of frustration with this entire issue, Mr. Secretary, and please realize that frustration is coupled with a very real sense of suspicion about the mission and composition of the Committee. I will be watching this Committee extremely carefully, and fear that despite our opposition, and over our objections, states [sic] rights will be trampled

Letter from Governor Stan Stephens, Mont., to Secretary of the Interior, Manuel Lujan (Dec. 20, 1990); see Letter from Governor Stan Stephens, Mont., to Secretary of the Interior, Manuel Lujan (Feb. 1, 1991) ("Again I feel compelled to express my very serious concerns with the current scope and direction of the Wolf Management Committee you have appointed at the direction of Congress."); see also *Marlenee Compares Wolves to Cockroaches*, GREAT FALLS TRIB., Dec. 21, 1990, at 1B. Idaho Governor (and former Secretary of the Interior) Cecil D. Andrus also wrote Secretary Lujan with complaints about the membership of the Committee. *Wolf Reintroduction Panel Prompts Disputes in Idaho*, GREAT FALLS TRIB., Dec. 30, 1990, at 4B.

227. Soon after their appointment, Francis "Pete" Petera and James H. Magagna complained that the May 15, 1991 deadline was not realistic. *Critics: Too Little Time For Wolf Study*, GREAT FALLS TRIB., Jan. 2, 1991, at 5A. By letter dated January 2,

Despite the governors' accusations and initial confusion over substantive issues, the WMC hosted three "informational listening sessions," one in each state affected by the reintroduction effort.²²⁸ Many of the issues raised earlier by politicians at the state and federal level surfaced at these local meetings. At minimum, the sessions demonstrated that local opposition to wolf recovery since the development of the Recovery Plan had become louder, if not more commonplace.²²⁹

1991, K.L. Cool ascertained the recommendations of the WMC would not be limited to biological questions, but would be "free to address legal, policy and/or procedural aspects of this matter." Letter from Selma Sierra, Director, External Affairs, Dept. of the Interior to K.L. Cool, Director, Mont. Dept. Fish, Wildlife and Parks (Jan. 25, 1991) (on file with author). During the first WMC public meetings on January 23-24, 1991, in Denver, Colorado, Pete Petera submitted a list of twelve questions to be addressed by the Committee. Pete Petera, Preliminary Questions and Concerns of the Wyoming Game and Fish Department Relative to the Reintroduction of Wolves to Yellowstone (unpublished report prepared for the WMC, Jan. 22, 1991) (on file with author); see *Wyoming Official: Wolf Panel Faces Questions*, GREAT FALLS TRIB., Feb. 4, 1991, at 5B.

228. WMC REPORT, *supra* note 225, at 2. An organizational meeting took place on January 23-24, 1991, in Denver, Colorado. Meetings on February 5-6 took place in Cheyenne, Wyoming (attendance 50 persons); March, 1991 in Boise, Idaho (250 persons); April 1-2 in Helena, Montana (500 persons). *Wolf Reintroduction Committee Holds First Meeting in Denver*, GREAT FALLS TRIB., Jan. 26, 1991, at A11; see also *Wyoming Official: Wolf Panel Faces Questions*, GREAT FALLS TRIB., Feb. 4, 1991, at B5; see also *Crowd Expected at Wolf Reintroduction Meeting*, GREAT FALLS TRIB., Mar. 22, 1991, at B1. Increased attendance in Montana resulted not only from the fact that the meeting was to be the last of its type, but also Troy Mader, an active opponent to wolf recovery, distributed a letter requesting that Montanans attend the Helena meeting to tell the WMC, the governor, and the legislature that "Montana does not want wolves." *Wyoming Man Asks Montana to Oppose Wolf Recovery*, GREAT FALLS TRIB., Feb. 15, 1991, at 1C. In response to the Mader controversy, Hank Fischer reportedly predicted, "If reasonable people from this region can't sit down and decide how wolves ought to be managed, what's quite likely is a federal judge will tell us how wolves ought to be managed." *Id.*

229. During a local WMC meeting in Great Falls, Montana, an opponent to recovery had the following to say:

A preservationist (another word for extremist) seeks only to preserve and sees no need for balance. "Let all wildlife grow old in peace and die," say the preservationists. A conservationist understands the nature of a renewable resource, takes responsibility for the good stewardship of the resource and promotes the economic utility of such resource in service to people, including the motel/hotel industry, the travel industry, the recreational tools and toys industry, the sport hunting industry, and the people who support each of these broad-based groups. Remove the wildlife resource base which the wolf will consume and you will see how wolves eat jobs.

We should not be swayed by the extremists' threatened illegal introduction of the wolf. It is an unacceptable choice between the threatened illegal introduction of the wolf and some kind of forced reintroduction of the wolf. The other choice, no wolves, the clear choice of the majority of the people, seems to have again been compromised in favor of a vocal minority that makes a living outside Montana.

I and recreationalists like me, acting individually and through organizations such as Ducks Unlimited, Safari Club International, the Rocky Mountain Elk Foundation, the Foundation for North American Wild Sheep and others, have done more to support wildlife than the Defenders of Wildlife or the Fund for Animals will ever hope to.

I repeat, no to the reintroduction of the wolf!

Gregory R. Schwandt, Statement at the Wolf Management Comm. Meeting at Great Falls, Mont. (Apr. 1, 1991).

On April 30, 1991, having heard local opinions and having considered nine alternative plans, eight members of the WMC approved a final report for Congress.²³⁰

Under the final WMC Report, the entire tri-state wolf population in Wyoming, Montana, and Idaho (outside Yellowstone and Glacier National Parks and a small area northwest of Glacier) would be designated "experimental, non-essential."²³¹ Any wolves outside the designated recovery zones will be subject to state management and control in order to avoid impact on big game and livestock.²³² In addition, the WMC Report recommends that each of the three states develop management plans regarding wolves within state boundaries.²³³ Each state will submit its respective plans for approval by the state's governor and the Secretaries of the Interior and Agriculture departments.²³⁴ Such development of state wolf management plans is subject to the implementation of an EIS and federal rule-making pursuant to NEPA,²³⁵ to be completed by July, 1993.²³⁶

Upon completion of the EIS process, the WMC Report proposes Park wolf reintroduction.²³⁷ State and federal agents will closely monitor such reintroduction.²³⁸ In addition, if two or more breeding pairs have not established themselves naturally in Central Idaho within five years of implementation, plans based on Park reintroduction results will be initiated for wolf reintroduction in the Idaho recovery area.²³⁹ After thirty breeding pairs have inhabited the tri-state area, the Northern Rocky Mountain Wolf will be delisted and returned to game

230. WMC REPORT, *supra* note 225. Hank Fischer and Thomas Dougherty voted against the WMC Report, arguing it would reduce protection for wolves naturally recovering in the northern Rockies. In addition, solicitors from the Department of the Interior opined it was illegal to overlay an experimental population on an existing population. Telephone Interview with Hank Fischer, Defenders of Wildlife (July 22, 1991). The majority apparently opted for the plan outlined below for the following reasons: 1) the proposal maximizes state participation, 2) it minimizes disruption of an expanding wolf population on public welfare and recreation, and 3) the report anticipates extensive public involvement in monitoring recovery. Jerry M. Conley, *A Visit to the Magic Kingdom*, IDAHO WILDLIFE 8, 9 (summer, 1991).

231. Conley, *supra* note 230, at 12-13. The experimental designation of the entire tri-state wolf population, including wolves naturally recolonizing, is without legal precedent under ESA section 10(j) (*supra* notes 158-172 and accompanying text) and has been styled by advocates of the proposal as "an inherent contradiction." Wayne Melquist, *The Wolf Plan What it Is and Isn't*, IDAHO WILDLIFE 10-11 (summer, 1991). Nonetheless, the WMC Report addresses the implementation problems posed by the geographical isolation limitation under section 10(j) of the ESA. *See supra* note 162.

232. WMC REPORT, *supra* note 225, at 12-13. In addition, livestock operators are permitted to kill depredating wolves on grazing allotments on public lands and on private lands. *Id.* at 14-15.

233. *Id.* at 12-13.

234. *Id.*

235. *See supra* note 167 and accompanying text.

236. WMC REPORT, *supra* note 225, at 4, 13.

237. *Id.* at 13.

238. *Id.*

239. *Id.*

animal status subject to full state control.²⁴⁰

The WMC Report recommends federal compensation for livestock losses, as well as federal funding for the entire recovery effort.²⁴¹ The report does not outline authority for such funding, but sufficient funding will exceed traditional ESA section 6²⁴² state participation funds.²⁴³ Thus, the WMC Report not only bypasses the ESA by providing for legislative designation of an experimental population in the tri-state area, it also exceeds ESA authority for use of the experimental designation, levels of control, and available funding. In June, 1991, Senator Wallop predicted that these legal defects would present a major stumbling block to congressional action on the WMC Report.²⁴⁴

Although the WMC Report represents a compromise proposal, endorsed by both federal agencies and erstwhile opponents to Park wolf recovery, it reportedly was "dead on arrival" in Congress.²⁴⁵ On June 26, 1991, rather than moving forward with the WMC Report, the House Interior Appropriations Committee directed implementation of the 1987 Recovery Plan in 1992 Interior appropriations legislation.²⁴⁶ Specifically, "[t]he Committee directs the Fish and Wildlife Service to implement the 1987 wolf recovery plan that is now in place, using the funds requested for wolf recovery. There is no reason to delay implementation at this time."²⁴⁷

In addition, for the fourth consecutive year, the House Interior Appropriations Committee approved funding for and implementation

240. *Id.* at 5-11. Once recovery population levels are reached, a public hunting season would be permitted. *Id.* at 14-15.

241. *Id.* at 15, 19.

242. 16 U.S.C. § 1535(d) (1988).

243. See *infra* note 327 and accompanying text. Despite the lack of legal authority for a federal wolf depredation compensation program, research has shown that: "[n]onconsumptive users of wildlife are a large and diverse group (more than 93 million people). Collectively, this group favors the general idea of new sources for non-game funding, [and they are most] inclined to support voluntary contributions and general taxes . . ." William Mangun & William Shaw, *Alternative Mechanisms for Funding Nongame Wildlife Conservation*, 44 PUB. ADMIN. REV. 407, 412 (1984); see Coggins & Evans, *supra* note 3, at 866.

244. Letter from Sen. Malcolm Wallop to John Turner, Director, FWS (June 7, 1991). Senator Wallop noted the following:

I must disagree with those in your agency [FWS] who believe that we can enact a reintroduction and management plan by simply preempting existing laws, such as the Endangered Species Act. I do not see any detour signs which allow us to go around the ESA.

[T]here is a red light ahead. To persist in this belief could doom the successful enactment of the committee's recommendations.

Id.

245. "Some say it [the WMC Report] is dead on arrival and I [Wyoming Representative Craig Thomas] suspect that is the case." *Wolf Plan May Be Dead*, GREAT FALLS TRIB., June 15, 1991, at 6C.

246. H.R. 2686, 102d Cong., 1st Sess. (1991). In addition, "An increase of \$6,000,000 is recommended for threatened, endangered and sensitive species, including at least . . . \$200,000 for the Rocky Mountain Wolf." H.R. REP. No. 116, 102d Cong., 1st Sess. 89 (1991).

247. H.R. REP. No. 116, 102d Cong., 1st Sess. 21 (1991).

of an EIS by NPS for Park wolf reintroduction under the original Recovery Plan.²⁴⁸ And for the fourth consecutive year, senators from Wyoming, Idaho and Montana persuaded the Senate Subcommittee on Interior Appropriations to delete from the House bill language authorizing implementation of the Recovery Plan.²⁴⁹ In deference to concerns by the local senators, the report from the Senate Subcommittee contains no mention of wolves.²⁵⁰ This Senate report, however, via NPS resources management funds, retains appropriations for implementation of an EIS on wolf reintroduction in Yellowstone National Park.²⁵¹

These recommendations ended the four-year long rejection of Park wolf EIS funding. The joint House-Senate Conference Committee Report on 1992 Interior Appropriations recommends to Congress the approval of \$348,000 to FWS and \$150,000 to NPS for the completion of an EIS regarding Park wolf reintroduction.²⁵² The EIS should be completed within 18 months of the enactment of the 1992 Interior Appropriations bill.²⁵³ In addition, the EIS should address the impact of wolves on the Park, covering "a broad range of alternatives."²⁵⁴ Nevertheless, funds are explicitly limited to EIS development, not actual Park wolf reintroduction.²⁵⁵

Thus, 1992 Interior appropriations are a step forward in Park wolf recovery.²⁵⁶ Yet, actual wolf reintroduction continues to be

248. *Id.* at 33. "Within the amount requested for resources management is \$348,000 for an environmental impact statement preparatory to reintroducing wolves into Yellowstone National Park. The Committee is pleased that the budget justification indicates that the EIS will be under way in 1991 and will monitor the progress on the EIS through quarterly reports to be submitted to the Committee beginning December 1, 1991." *Id.*

249. The senators wrote to the Subcommittee that:

It is difficult to understand why the House Interior Appropriations Committee would have agreed to fund this [WMC] committee and then totally ignore its recommendations. We are very concerned that this year's House Interior Appropriations Bill would require a full environmental impact statement on a wolf plan that does not have the full support of the states involved. For that reason, we want to express our strong opposition to this provision in the House bill. We would strongly urge you to work to delete this provision during conference committee deliberations.

Letter from Sens. Malcolm Wallop and Alan Simpson (Wyo.), Max Baucus and Conrad Burns (Mont.), and Steve Symms and Larry Craig (Idaho) to Sen. Robert Byrd, Chairman, Subcommittee on Interior Appropriations (June 27, 1991).

250. S. REP. NO. 122, 102d Cong., 1st Sess. (1991). The Senate version does retain FWS funding for wolf management and animal damage control.

251. *Id.* at 23, 25.

252. CONF. REP. NO. 256, 102d Cong., 1st Sess. 16-17 (1991).

253. *Id.*

254. *Id.* Such a broad range of alternatives would presumably include natural migration, reintroduction under the Recovery Plan, the WMC Report, and any other biologically feasible method of Park wolf recovery.

255. *Id.*

256. See *Wolf reintroduction study due in 18 months*, GREAT FALLS TRIB., Oct. 20, 1991, at 5A.

delayed, to the dismay of many groups.²⁵⁷ More importantly, with delay of reintroduction, wolves continue to migrate closer to Park boundaries. Such migration makes very real the foreclosure of the designation of a Park wolf population as experimental under the ESA.

IV. WOLF CONTROL AND MANAGEMENT

A. *Control as a Matter of Public Concern and Necessity*

If the Northern Rocky Mountain Wolf naturally recovers under ESA protection, and if a Park population can be reestablished, the probability of wolves straying outside of recovery area boundaries becomes almost certain. The question then becomes not one of recovery of an endangered species, but rather one of permissible control of stray and/or depredated animals.

According to scientists, any successful wolf recovery effort requires a management program. A management program must not only address concerns of residents near recovery areas, but also habitat and biological requirements particular to the species.²⁵⁸ Accordingly:

[S]ome control of wolves would eventually be necessary in [and around Yellowstone National Park]. Some control will be accepted by almost all interest groups involved; the disagreement will be over what circumstances warrant control and **how much** is needed. Some individuals and conservation/wolf-advocate groups seem inherently to oppose most control of wolves (especially at the hands of the public) even when the impact on the wolf population may be negligible. On the other hand, those who feel their economic interests will be threatened oppose reintroduction and may assert that a high level of wolf control would be necessary to minimize the effect of wolves on livestock and big game [citations omitted] [emphases in original].²⁵⁹

Public surveys regarding reintroduction indicate that while a majority of local and national residents favor wolf recovery,²⁶⁰ opinions on con-

257. See *supra* note 157 and accompanying text.

258. L. DAVID MECH, *SOME CONSIDERATIONS IN RE-ESTABLISHING WOLVES IN THE WILD, THE BEHAVIOR AND ECOLOGY OF WOLVES* 445-57 (E. Klinghammer, ed. 1979).

259. *WOLVES FOR YELLOWSTONE*, *supra* note 46, at 1-12.

260. Based on 1987 surveys, 52 percent of Montanans approved (38 percent disapproved) wolf recovery in Montana, Idaho, and Yellowstone Park. In Wyoming, 48 percent were in favor, 34 percent opposed. Bureau of Business and Economic Research, University of Montana, *The Montana Poll* (unpublished report 1987); Alistair Bath, *Statewide Survey of the Wyoming General Public Attitude Towards Wolf Reintroduction in Yellowstone National Park* (1987); see Alistair Bath, *Public Attitudes About Restoration in Yellowstone National Park?*, *THE GREATER YELLOWSTONE ECOSYSTEM: REDEFINING AMERICA'S WILDERNESS HERITAGE* (Robert B. Keiter & Mark S. Boyce, eds., 1991). In rural areas and locations proximate to the Park, the percentage of persons in opposition has increased while stockgrowers throughout the area remained uniformly opposed to reintroduction. Reportedly, "several [unquantified] of the Wyoming stock growers [sic] who responded to [the] survey wrote supplementary comments asking where they could obtain compound 1080 . . . if wolves were reintroduced." *WOLVES*

control and management issues differ sharply among the constituents.²⁶¹

This constituent-level dichotomy between recovery and control has also developed on a state political level.²⁶² Wyoming, Idaho, and Montana uniformly oppose a federal wolf recovery effort, but differ widely in terms of management issues.²⁶³ Wyoming legislation currently lists the wolf as a predator.²⁶⁴ Yet, the state supports federally funded research and monitoring efforts to manage the wolf as a non-game species and ensure state ungulate objectives.²⁶⁵ Idaho state law protects wolves as an endangered species.²⁶⁶ Nevertheless, the state position is that the wolf be delisted as an endangered species under the ESA, and recovery be implemented only in the limited area designated under the Recovery Plan, but not throughout the northern Rocky Mountain region.²⁶⁷ Likewise, Montana proposes that the wolf be managed under the state's Nongame and Endangered Species Act²⁶⁸ and delisted from the ESA.²⁶⁹

FOR YELLOWSTONE, *supra* note 46, at 1-24.

261. The general public favors control that is "offender-specific and relatively humane." Stockgrowers and residents near recovery areas approved more non-specific shooting and poisoning. Few conservationists approved of killing wolves at all. See WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-27.

262. See WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-28 for a summary of various state control and management programs. See also MANAGEMENT OVERVIEW, *supra* note 53.

263. In 1991, the legislatures of Idaho and Wyoming each passed joint resolutions opposing federal reintroduction, protection, and management of wolves. Idaho House Joint Memorial No. 6, 51st Leg., 1st Sess. (1991); Wyo. Enrolled Joint Resolution No. 1, 51st Leg., Gen. Sess. (1991). Although the Montana legislature did not pass a similar bill during its 1991 session, Governor Stan Stephens has noted that the state is also opposed to federal reintroduction and management. Letter from Governor Stan Stephens, *supra* note 226. In 1987, Montana offered, without success (due to ongoing NPS and FWS efforts), to implement a state wolf recovery effort using state funds. Letter from Governor Schwinden to Galen Buterbaugh, Regional Director, FWS (Feb. 25, 1987).

264. WYO. STAT. § 23-1-101 (1991). Under this statute, the wolf may be taken at any time without limit. County predator control boards can offer bounties on a local basis.

265. Wyoming proposes public hunting to maintain wolf populations once recovery goals are met. MANAGEMENT OVERVIEW, *supra* note 53, at 19-20.

266. IDAHO CODE § 36-715 (1990). Under the Idaho statute, wolves may be taken to protect human life and property. In addition, the statute provides the following restriction:

The department of fish and game shall not be authorized to expend funds, transfer assets or enter into a cooperative agreement with any agency, department or entity of the United States government concerning wolves unless expressly authorized by state statute except that the department is authorized to provide a representative to participate on the northern rocky mountain wolf recovery team and to participate in activities regarding nuisance wolves.

Id. at § 36-715(2).

267. Idaho's proposed recovery is complete when there is no longer a threat of extinction to the wolf population within the recovery area. MANAGEMENT OVERVIEW, *supra* note 53, at 18.

268. Under the Montana Nongame and Endangered Species Conservation Act, taking of wolves is authorized for propagation in captivity, for scientific, zoological, educational or other special purposes by permit issued by the Director, Montana Fish, Wildlife and Parks. Wolves may also be taken without permit in emergency situations

Such widely discrepant views indicate that some politicians and their constituents, both locally and nationally, are disregarding a touchstone of wolf recovery: the method by which wolves reoccupy designated recovery areas. This important concept determines how the wolf may be managed.²⁷⁰ Wolves that disperse naturally into the Park and other recovery areas are afforded, as an endangered species, full protection under ESA sections 7 and 9.²⁷¹ These wolves would be subject to little management flexibility, unless delisted.²⁷² Wolves translocated to recovery areas, but not designated as an experimental population, would be similarly treated.²⁷³

Experience with Minnesota wolf populations demonstrates the severity of management restrictions under ESA section 3(2) regarding natural populations of threatened species.²⁷⁴ When Secretary of the Interior Andrus allowed a Minnesota wolf sport hunting season, conservationists brought suit to enjoin the action as a violation of the ESA.²⁷⁵ The court in this case, *Sierra Club v. Clark*,²⁷⁶ agreed with the conservationists, holding that allowing sport hunting went beyond ESA authority.²⁷⁷ In addition, the ruling set out extremely narrow circumstances permitting regulated takings of depredating wolves.²⁷⁸

Like the United States Court of Appeals for the Eighth Circuit in *Sierra Club v. Clark*, the Ninth Circuit has taken equally restrictive views on wolf management under the ESA. Specifically, the Ninth Circuit has held that ESA section 7 procedures must be strictly followed where proposed agency action might influence recovery of natural Northern Rocky Mountain wolf populations.²⁷⁹ In 1984, the United States District Court for the District of Idaho approved FWS plan-

involving an immediate threat to human life or livestock depredation. MONT. CODE ANN. §§ 87-5-101 to -123 (1989); see MONT. ADMIN. R. § 12.5.201(c).

269. Montana authorities recognize that management objectives should be developed. MANAGEMENT OVERVIEW, *supra* note 53, at 17.

270. In 1989, Montana officials informed FWS "it is time to develop a consensus for wolf management among all interested parties." From this perspective, these officials listed management issues to be addressed by FWS. Letter from K.L. Cool, Director, Mont. Dept. of Fish, Wildlife & Parks to Kemper McMaster, Field Supervisor, FWS (Oct. 4, 1989) (on file with author). Recognizing "those concerns are legitimate and need resolution," FWS set forth its position on each issue in a letter to Mr. Cool. Letter from Galen L. Buterbaugh, Regional Director, FWS to K.L. Cool (June 25, 1990) (on file with author).

271. See *supra* notes 118-137 and *infra* notes 299-315 and accompanying text.

272. Control of depredating wolves is possible under ESA section 10(a). See *infra* notes 299-315 and accompanying text for a discussion of control under the ESA.

273. *Id.*

274. The ESA permits regulated takings of depredating wolves listed as threatened only under narrow circumstances. See *supra* notes 299-315 and accompanying text.

275. *Sierra Club v. Clark*, 577 F. Supp. 783, 789 (D. Minn. 1984), *aff'd in part, rev'd in part*, 755 F.2d 608 (8th Cir. 1985).

276. *Id.*

277. *Id.*

278. See *infra* notes 310-313 and accompanying text.

279. *Thomas v. Peterson*, 753 F.2d. 754 (9th. Cir. 1985).

ning and permission for construction of a timber road in the Jersey Jack area of the Nez Perce National Forest in Idaho, a designated wolf recovery area.²⁸⁰ The Ninth Circuit reversed, holding that “[a] failure to prepare a biological assessment for a project in an area in which it has been determined that an endangered species may be present cannot be considered a de minimis violation of the ESA.”²⁸¹ Thus, this Circuit mandates strict adherence to ESA section 7 procedures as they relate to proposed projects in wolf recovery areas.

Unlike naturally dispersing wolves, wolves reintroduced as an experimental, non-essential population are afforded full ESA section 7 protection only in national parks and wildlife refuges.²⁸² In addition, an experimental wolf population would be subject to considerable management flexibility, including substantial state participation.²⁸³ Therefore, present political dilatory tactics against implementing the wolf reintroduction may be counterproductive not only to wolf advocates, but also recovery opponents. The longer the delay, the greater the opportunity for wolves to disperse naturally into Yellowstone National Park. The longer the delay, the less the likelihood for considerable management options of an experimental population as proposed by the Recovery Plan.

B. Control and Management Under the Recovery Plan and Interim Control Plan

The Northern Rocky Mountain Wolf Recovery Plan proposes that wolf control accompany recovery:

As proposed by this plan, control actions will be taken to trap and relocate depredating wolves (or, if this is not possible, lethal control may be used as a last resort) only in the case where verified wolf depredation occurs on lawfully present livestock. Control actions will serve to enhance the overall survival of the wolf by demonstrating to those concerned about the impact of wolf recovery on the livestock industry that responsible Federal agen-

280. *Id.*

281. *Id.*; see also *Thomas v. Peterson*, 841 F.2d 332 (9th Cir. 1988).

282. See *supra* notes 177-180 and accompanying text.

283. See *infra* notes 324-336 and accompanying text for a discussion of control and management of an experimental population. Other methods of recovery include illegal introduction and federal legislative action. For example, in August, 1990, George Wuerthuer of Livingston, Montana, announced the formation of the National Wolf Growers Association whose purpose would be to raise wolves and release them privately. See *Livingston Man Impatient-Tries to Start Wolf*, GREAT FALLS TRIB., Aug. 12, 1990, at 7A. In June, 1991, a Tennessee man was unsuccessful in his illicit attempt to leave two pet wolves in Glacier National Park. After having been discovered, the man was arrested and the wolves translocated to a research center. *Tennessean Fined For Dumping Wolves: Pets Follow Leader of the Pack From Park*, GREAT FALLS TRIB., June 12, 1991, at C1. Management of animals reintroduced in these manners would depend respectively on the ability to distinguish illegal wolves and on the nature of any eventual wolf regulations.

cies will act quickly to alleviate depredation problems.²⁸⁴

From this perspective, wolf control is necessary to accommodate human tolerance of wolves.

The Recovery Plan provides that each of the three recovery areas²⁸⁵ will be segmented into wolf management zones. In Zone I, where potential for conflict with other land uses is low, wolf recovery will be promoted.²⁸⁶ Wolf recovery will not be promoted in Zone III, which consists of land outside designated recovery areas where potential for conflict with other land uses is high.²⁸⁷ Zone II is a buffer zone, the boundaries of which are adjustable to meet wolf habitat needs provided adjustment does not increase chances of conflict with livestock areas/allotments.²⁸⁸

The Recovery Plan outlines conservation and management guidelines for wolf recovery implementation in each of the three management zones in each of the three recovery areas.²⁸⁹ Management strategies include development of zone-specific criteria for determining the designation²⁹⁰ and disposition of problem wolves to prevent livestock

284. RECOVERY PLAN, *supra* note 11, at 9.

285. Recovery areas in Wyoming, Montana, and Idaho are described *supra* notes 151-152 and accompanying text. In June, 1990, FWS acknowledged the following:

We have no plans to confine endangered species to a recovery area. The recovery plan does not require that wolves be confined to the recovery area. Discussions with planning team members indicated wolves would not be automatically removed outside the implied recovery area (as witnessed by the inclusion of travel corridors) but wolves could be removed pursuant to specified procedures if livestock conflicts occurred or were likely to occur.

The Act (16 U.S.C. 1531) does not *specifically* address the concept of recovery areas for endangered and threatened species conservation. The Service believes, however, that for certain species, such as the grizzly bear and gray wolf, the use of recovery areas in their management actually enhances their survival and propagation and hence promotes their recovery. Actions which enhance survival and recovery of listed species are consistent with the Act.

The Northern Rocky Mountain Wolf Recovery Plan (approved August 3, 1987) recommended three areas in the Rocky Mountains where wolf recovery could occur due to low potential conflict with other land uses. The recovery team made special efforts to clarify that the tentative recovery lines were only one recommendation and that delineation of specific recovery areas and their management zones should be established at a later date with public input. The recovery plan suggested wolf recovery outside the tentative recovery area will not be *promoted* at this time due to the potential conflict with existing land uses [emphases in original].

Letter from Galen L. Buterbaugh, *supra* note 270.

Current management plans and regulations for the wolf populations in Minnesota and Montana are not zone specific. See *infra* notes 295 and 309. Zone-specific management regulations can result in circumstances such as the controversial killing of Yellowstone National Park bison. See *supra* note 9.

286. RECOVERY PLAN, *supra* note 11, at 31.

287. *Id.*

288. *Id.*

289. *Id.* at 22-39.

290. In Zone I, a "wolf may be determined to be a problem if depredations on lawfully present domestic livestock occur in areas/habitat components that are not critically important to wolves in time or space and if all other options for resolving the

losses and avoid conflict with state big game objectives. Every attempt is to be made to relocate problem wolves to a predetermined area in Zone I. If, however, initial efforts fail to control depredations and second offenders, or relocated wolves continue to return to livestock areas, "lethal control using approved methods may be used."²⁹¹ Any conservation strategies developed "must, out of necessity, be closely coordinated with State big game management objectives."²⁹² In addition, compensation funds for depredation losses are "part of the necessary control program."²⁹³

On August 5, 1988, Galen Buterbaugh, FWS Regional Director for Region 6, approved the Interim Wolf Control Plan for the Northern Rocky Mountains of Montana and Wyoming (the Interim Control Plan).²⁹⁴ Relying on Recovery Plan strategies, the Interim Control Plan contains detailed guidelines for the determination and disposition of problem wolves.²⁹⁵ These guidelines operate until specific management zones and objectives are established through development of an EIS and Northern Rocky Mountain Wolf conservation regulations.²⁹⁶ FWS has already made use of lethal control techniques pro-

conflict have been exhausted." *Id.* at 33. In Zone II, a wolf is a problem if depredations occur on lawfully present livestock. Any wolf that preys on livestock or poses a threat as determined by state or federal personnel in Zone III will be controlled. *Id.* at 34.

291. *Id.* at 34-35.

292. *Id.* at 36-37. "Monitoring of ungulate and wolf populations and the effects of wolf predation on such prey populations will be essential." *Id.* See letter from Galen L. Buterbaugh, *supra* note 270, at 7-8 (FWS analysis of state big game objectives within wolf management plans). The Recovery Plan notes that active state participation is "essential" to the recovery effort. See *WOLVES FOR YELLOWSTONE*, *supra* note 46, at 1-50 to 1-59. Recognizing that such participation costs money, the Plan suggests that federal funds for state participation may be available under section 6 of the ESA. *RECOVERY PLAN*, *supra* note 11, at 43. For discussion of state participation, see *infra* notes 324-336 and accompanying text.

293. *RECOVERY PLAN*, *supra* note 11, at 36. In 1987, the Defenders of Wildlife began to put together a private compensation fund for livestock losses caused by verified wolf depredation. Sources of money for the fund included private donations and contributions from concert ticket sales of James Taylor and poster sales by Monte Dolack. *Doleck, James Taylor Aid Wolf Recovery*, *GREAT FALLS TRIB.*, Aug. 14, 1989, at 7A. In July, 1988, the fund reached a self-sustaining level of \$100,000. *Wolf Recovery Leader Says Support is Growing*, *GREAT FALLS TRIB.*, July 17, 1988, at 7B. The Defenders of Wildlife reportedly compensated ranchers for the 1987 Browning, Montana and September, 1989 Kalispell, Montana depredations. *Conservationists to Pay for Stock Kills*, *GREAT FALLS TRIB.*, Sept. 22, 1989, at 11A. Currently, federal depredation compensation funds are not available.

294. U.S. FISH & WILDLIFE SERVICE, DENVER, COLO. REGIONAL OFFICE, INTERIM WOLF CONTROL PLAN—NORTHERN ROCKY MOUNTAINS OF MONTANA AND WYOMING (Aug. 5, 1988) [hereinafter INTERIM CONTROL PLAN]. On February 8, 1990, FWS amended the INTERIM CONTROL PLAN to include Idaho and northeast Washington. U.S. FISH & WILDLIFE SERVICE, PORTLAND, OREGON REGIONAL OFFICE, AMENDMENT No.1 FOR INCLUDING IDAHO AND NORTHEAST WASHINGTON TO THE INTERIM WOLF CONTROL PLAN—NORTHERN ROCKY MOUNTAINS OF MONTANA AND WYOMING (Feb. 8, 1990) [hereinafter INTERIM AMENDMENT].

295. *Interim Control Plan*, *supra* note 294, at 7-12; *INTERIM AMENDMENT*, *supra* note 294, at 7-16. Unlike zone-specific management strategies in the Recovery Plan, permissible control strategies under the Interim Control Plan are not currently zone-specific.

296. *WOLVES FOR YELLOWSTONE*, *supra* note 46, at 1-29; see also *supra* notes 166-

vided in the Interim Control Plan in response to Montana wolf depredations.²⁹⁷

C. Control and Management Under the ESA

The Recovery Plan and Interim Control Plan control and management provisions regarding problem wolves are not an arbitrary FWS creation. They are grounded on decades of biological and habitat studies. In addition, these provisions rely on often overlooked ESA provisions for taking of listed species animals and state participation in listed species management.²⁹⁸

ESA section 9²⁹⁹ makes it illegal, among other things, for any person to "take" an endangered species within the United States.³⁰⁰ "Taking" means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."³⁰¹ The Secretary, however, may authorize an otherwise prohibited taking "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."³⁰² In addition, ESA section 10³⁰³

167 and accompanying text.

297. In 1987, prior to the adoption of the Interim Control Plan, FWS responded to reported depredations on the Blackfoot Indian reservation near Browning, Montana. FWS agents killed four wolves, and captured two, sending the captured wolves to a Minnesota research facility. One wolf evaded the federal trapper. The incident reportedly involved the deaths of three yearling cattle, nine ewes, and a lamb. *Wolves on Front Prove Elusive*, GREAT FALLS TRIB., May 17, 1990, at 1C. The unfortunate rancher reportedly noted that "all that was eaten [of one of the ewes lost] was the stomach." *Id.* The total cost of this response action was \$41,000. *Id.* at 2C.

In the summer of 1989, FWS responded under the Interim Control Plan to reported depredations of seven calves in the Marion area west of Kalispell, Montana. This time, FWS personnel captured four wolves and relocated them to Glacier National Park at a cost of \$9,500. Of the relocated animals, FWS killed the adult male when it again threatened livestock. The two pups died or were illegally killed. *See supra* note 94 for a summary of the Marion area response action. *See also Wolves on Front Prove Elusive*, GREAT FALLS TRIB., May 17, 1990 at 2C; *Id.* at 1C. The last survivor of the relocated Marion wolves, an adult female, wandered south, found a mate, and established the now-defunct "Ninemile Pack" northwest of Missoula, Montana. *See supra* note 94 and accompanying text.

298. RECOVERY PLAN, *supra* note 11, at 9; INTERIM CONTROL PLAN, *supra* note 294, at 4-5; INTERIM AMENDMENT, *supra* note 294, at 5.

299. 16 U.S.C. § 1538(1)(B) (1988).

300. *Id.*

301. *Id.* at § 1532(19). Under FWS regulations, "harm" includes any action which actually kills or injures wildlife. 50 C.F.R. § 17.3 (1990). Significant environmental modification or degradation of an endangered species habitat which actually kills or injures animals also constitutes harm. *Palila v. Hawaii Dep't. of Land & Nat. Resources*, 649 F. Supp. 1070 (D. Haw. 1986), *aff'd*, 852 F.2d 1106 (9th Cir. 1988).

302. 16 U.S.C. § 1539(a)(1)(B) (1988). An applicant for a permit under this section must submit a comprehensive conservation plan under section 1539(a). In order to issue the permit, the Secretary must issue the written statement required by section 1536(b)(4) and, on the basis of the comprehensive plan, find (1) an incidental taking; (2) minimization and mitigation of impacts by the applicant; (3) adequate funding; and (4) no appreciable reduction to the likelihood of the survival of the species. *Id.* at § 1539(a)(2)(A). The Secretary's decision to grant such a permit is subject to judicial review. ENVIRONMENTAL RIGHTS, *supra* note 36, at 1877 n.74.

permits an otherwise prohibited taking for "scientific purposes or to enhance the propagation or survival" of the species.³⁰⁴ The FWS Regional Director may issue section 10 control action permits only to federal, state, or tribal personnel, but not to private individuals.³⁰⁵

The United States District Court for the District of Minnesota in *Fund for Animals v. Andrus*³⁰⁶ and the United States Court of Appeals for the Eighth Circuit in *Sierra Club v. Clark*,³⁰⁷ both held that the ESA permits taking of depredating wolves listed as threatened. The courts, however, disagreed on the source of authority under the ESA for such regulated taking. In *Sierra Club v. Clark*, the court held that regulated takings are permissible under ESA section 10(a)(1)(A).³⁰⁸ In *Fund for Animals v. Andrus*, the court held that the Secretary has discretion to issue conservation regulations permitting regulated takings under ESA section 4(d).³⁰⁹

Current FWS regulations³¹⁰ affecting Minnesota wolves satisfy the mandate of these two judicial decisions. Under the regulations, no public hunting of wolves is allowed.³¹¹ FWS personnel may, however, trap wolves within one-half mile of property affected by "significant depredation."³¹² If FWS reasonably believes the trapped wolf committed a depredation, and translocation of the wolf is not possible, FWS may kill the wolf.³¹³

The Recovery Plan and Interim Control Plan both conclude that "development of a control plan to deal with problem wolves [is] . . . essential if wolf recovery is to be accepted and coordinated with alternate resource uses."³¹⁴ In a biological opinion issued pursuant to ESA

303. 16 U.S.C. § 1539(a)(1)(A) (1988).

304. *Id.* "While this exception does not authorize establishment of a public sport season, it does give the Secretary discretion to permit, for example, the removal of depredating animals or the culling of diseased animals from a population . . ." *Sierra Club v. Clark*, 577 F. Supp. 783 (D. Minn. 1984), *aff'd in part, rev'd in part on other grounds*, 755 F.2d 608 (8th Cir. 1985).

305. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-29.

306. 11 Env'tl. Rep. Cas. (BNA) 2189 (D. Minn. 1978); see *supra* note 15.

307. 755 F.2d at 617-18; see *infra* note 342 and accompanying text.

308. 755 F.2d at 617-18; see *supra* notes 302-305.

309. 16 U.S.C. § 1533(d) (1988). Conservation regulations may permit regulated taking of threatened species because, under section 3(2) of the ESA (16 U.S.C. § 1532(3)), "conservation" includes regulated taking in the extraordinary case where population pressures within an ecosystem cannot otherwise be relieved. 11 Env'tl. Rep. Cas. (BNA) at 2199. Despite zone-specific management strategies in the Minnesota Wolf Recovery Plan, permissible control actions under the authority of *Sierra Club v. Clark* and *Fund for Animals v. Andrus* are not zone-specific.

310. 50 C.F.R. § 17.40 (1990). One student commentator argues these regulations would not be upheld under "hard look" judicial review of whether the regulations are based on considerations sanctioned by Congress. Keith Saxe, Note, *Regulated Taking of Threatened Species Under the Endangered Species Act*, 39 HASTINGS L.J. 399 (1988).

311. 50 C.F.R. § 17.40 (1990).

312. *Id.*

313. *Id.*

314. RECOVERY PLAN, *supra* note 11, at 11. "By enhancing the chances of those

section 7,³¹⁵ FWS stated that wolf-specific control actions will not jeopardize the continued existence of the species.³¹⁶ Rather, prompt wolf-specific control action will demonstrate FWS resolve to deal with depredations. FWS expects such action will calm local wolf opponents who fear such resolve does not exist, thereby reducing illegal killings of wolves.³¹⁷ By enhancing survival chances of non-offending wolves, the FWS control program will contribute to Northern Rocky Mountain Wolf recovery.³¹⁸

According to FWS and *Fund for Animals v. Andrus*,³¹⁹ illegal killing of wolves outside of recovery areas constitutes "population pressure"³²⁰ within the meaning of ESA section 3(2).³²¹ Consequently, achieving "optimum" wolf population levels may involve reductions by regulated taking below "biological," potential wolf population levels.³²² In fact, the Recovery Plan expressly recognizes the concept of "wildlife acceptance capability" (the threshold ability of humans to accept wolves) as a fundamental requirement to successful conservation efforts.³²³

D. State Cooperation in Species Management Under the ESA

The Recovery Plan and Interim Control Plan also rely on often overlooked ESA provisions for state participation in listed species

nonoffending wolves and removing those wolves that do kill livestock, the control program will actually contribute to the ultimate recovery of the wolf in the northern Rocky Mountains." INTERIM CONTROL PLAN, *supra* note 294, at 5; INTERIM AMENDMENT, *supra* note 294, at 5; *see also* WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-29.

315. 16 U.S.C. § 1536 (1988).

316. U.S. FISH & WILDLIFE SERVICE, DENVER, COLO. REGIONAL OFFICE, ENVIRONMENTAL ASSESSMENT, INTERIM WOLF CONTROL PLAN FOR MONTANA AND WYOMING (May, 1988).

317. *Id.*

318. *Id.* FWS has stated that:

It is the [FWS] intention to manage wolves in the northern Rocky Mountains in a manner that allows nonpredating wolves to be the "building blocks" of the population. Nonpredating wolves should cause little or no conflict with man, thus it is these animals that the Service intends to build its recovery program around.

INTERIM CONTROL PLAN, *supra* note 294, at 4; *see* INTERIM AMENDMENT, *supra* note 294, at 5.

319. 11 *Env'tl. Rep. Cas.* (BNA) at 2189; *see supra* note 15.

320. The original ESA Joint Conference Report describes "population pressure" as circumstances "where a given species exceeds the carrying capacity of its particular ecosystem." H.R. REP. NO. 740, 93d Cong., 1st Sess. 23 (1973), *reprinted in* 1973 U.S.C.C.A.N. 3002. "Carrying capacity" is the maximum population level of a species supportable by a given habitat, and encompasses such factors as food and water supply, climate, topography, cover, and extra-species interactions. ROBERT DASMAN, *WILDLIFE BIOLOGY* 55-57 (2d ed. 1981).

321. 16 U.S.C. § 1532(2) (1988); *see supra* note 309; *see also infra* notes 322-323 and accompanying text.

322. 50 C.F.R. § 11(h) (1990). Two commentators have argued, "FWS, in choosing to keep wolves completely away from cows, premised its decision on local political reaction, not on legal or biological factors [A]lthough instructed to render a non-political, biological opinion, the Recovery Team premised its recommendations on accommodating local hostility" COGGINS & EVANS, *supra* note 3, at 865 n.447.

323. *See* RECOVERY PLAN, *supra* note 11, at 31.

management. ESA section 6³²⁴ provides for cooperative state-federal agreements, essentially allowing state management of endangered and threatened species.³²⁵ States may also agree to manage designated conservation areas.³²⁶ Once the Secretary of the Interior determines a state listed species conservation program is adequate under the ESA, he or she shall enter into a cooperative agreement with the state to implement the state program.³²⁷

A state program is adequate if it meets the following requirements (the "total requirements"):³²⁸ 1) the state agency has the authority to conserve endangered or threatened species, 2) the state has established conservation programs acceptable under the ESA for all resident species of fish and wildlife within the state deemed by the Secretary to be endangered or threatened, 3) the state has furnished said plans to the Secretary, 4) the state agency has authority to determine resident species survival requirements, 5) the agency is authorized to establish programs for conservation of resident endangered or threatened species, and 6) the state plan provides for public participation in designation of a resident species as endangered or threatened. If the Secretary and a state enter into a cooperative agreement to implement state conservation programs adequate under these total requirements,³²⁹ ESA section 4(d) protective regulations³³⁰ and 9(a) taking prohibitions³³¹ do not apply to the subject species.

The above formulation represents only one of two types of adequate state conservation programs. A listed species conservation program might also be adequate if it meets only requirements (4) through (6) above. This is so, provided the state program includes plans for "immediate attention" for those species designated threatened or endangered and which are "most urgently in need of conservation programs."³³² Only cooperative agreements to implement state programs adequate under these less extensive requirements³³³ continue to subject a species to ESA sections 9 and 4(d) prohibitions.³³⁴

States entering into cooperative agreements may receive federal

324. 16 U.S.C. § 1535 (1988).

325. *Id.* at § 1535(c). "[T]he Secretary is authorized to enter into a cooperative agreement . . . with any State which establishes and maintains an adequate and active program for the conservation of endangered species and threatened species." *Id.*

326. *Id.* at § 1535(b).

327. *Id.* at § 1535(c)(1).

328. *Id.* at § 1535(c)(1)(A)-(E).

329. *Id.*

330. *Id.* at § 1533(d); see *supra* note 309 and accompanying text.

331. 16 U.S.C. § 1538 (1988); see *supra* notes 299-323 and accompanying text.

332. 16 U.S.C. § 1535(c)(1)(i), (ii) (1988).

333. *Id.*

334. *Id.* at § 1535(c)(1)(ii). "[Only] a cooperative agreement entered into with a State whose program is deemed adequate and active pursuant to [16 U.S.C. § 1535(c)(1)(i) and (ii)] shall not affect the applicability of prohibitions set forth in or authorized pursuant to section 1533(d) . . . or section 1538(a)(1) . . . (emphasis added)." *Id.*; see ENVIRONMENTAL RIGHTS, *supra* note 36, at 1876.

aid under the ESA to develop conservation programs.³³⁵ Recognizing the availability of funding, the Recovery Plan notes “[f]ull cooperation by the States is essential to success of recovery efforts.”³³⁶ Thus, both the ESA and the Recovery Plan recognize the importance of state conservation cooperation.

E. Control and Management of an Experimental Population

If the Secretary of the Interior designates a reintroduced Park wolf population as experimental, non-essential under section 10(j) of the ESA,³³⁷ considerable management flexibility anticipated by the Recovery Plan would be available.³³⁸ Concerning the 1982 amendments which added the experimental designation option to the ESA,³³⁹ the Senate Committee on Environment and Public Works reported the following to Congress:

The Secretary is granted broad flexibility in promulgating regulations to protect the threatened species. These regulations may even allow the taking of threatened animals Where appropriate, the regulations may allow for the direct taking of experimental populations. For example, regulations pertaining to the release of experimental populations of predators, . . . will probably allow for the taking of these animals if depredations occur or if the release of these populations will continue to be frustrated by public opposition.³⁴⁰

In 1984, when the FWS adopted experimental population regulations, it noted the primary purpose of the experimental designation is to afford flexibility in conservation strategies in areas of staunch local opposition to recovery efforts.³⁴¹

Given these views, attention fell on the *Sierra Club v. Clark* ruling,³⁴² which held that the Secretary may not permit the regulated taking of a threatened species in the absence of a showing of an ex-

335. 16 U.S.C. § 1535(d) (1988); see 43 Fed. Reg. 38,737 (Aug. 30, 1978). Under the ESA, up to 75 percent of a state's program costs may be subsidized. 16 U.S.C. § 1535(d)(1988). Montana state officials argue although ESA section 6 funds are available, relying on such funds is “risky” because the funds are typically inadequate. Telephone Interview with Jim Posewitz, Special Assistant to the Director, Resource Assessment Unit, Mont. Dep't. of Fish, Wildlife & Parks (July 26, 1991).

336. RECOVERY PLAN, *supra* note 11, at 43.

337. 16 U.S.C. § 1539(j) (1988); see *supra* notes 158-172 and accompanying text.

338. *Id.* at § 1539(a)(1) (1988). “The Secretary may permit, . . . any act otherwise prohibited by section 1538 . . . including, but not limited to, acts necessary for the establishment and maintenance of experimental populations pursuant to [section 1539 (j)].” *Id.*; see W. TILT, ET AL., WOLF RECOVERY IN THE NORTHERN ROCKY MOUNTAINS (1987).

339. See *supra* note 160 and accompanying text.

340. S. REP. No. 418, 97th Cong., 2d Sess. (1982), reprinted in 1982 U.S.C.C.A.N. 2807.

341. See H.R. REP. No. 567, 97th Cong., 2d Sess. (1982), reprinted in 1982 U.S.C.C.A.N. 2833-34.

342. 755 F.2d 608 (8th Cir. 1985).

traordinary case.³⁴³ In this case the Eighth Circuit Court of Appeals explicitly limited its holding to "threatened" populations.³⁴⁴ Nonetheless, application of the holding to a Park experimental wolf population became a concern.³⁴⁵ In 1987, the Senate Committee on Environment and Public Works opined *Sierra Club v. Clark* would not apply to such an experimental population.³⁴⁶ Specifically noting proposed experimental designation of Park wolves, this committee confirmed the management flexibility inherent in such a designation.³⁴⁷ This confirmation dispelled any notion that *Sierra Club v. Clark* applied to experimental populations.

Liberalized permission to take members of experimental populations contrasts with ESA restrictions applying to members of listed species outside such populations.³⁴⁸ The House Report accompanying the 1982 ESA section 10(j) amendments confirms this distinction:

This new provision is intended to give greater flexibility to the Secretary in the treatment of populations of endangered or threatened species that are introduced into areas outside their current range. The Committee believes that such introductions, if carefully planned and controlled, may be beneficial in securing the restoration of listed species. To encourage efforts to establish such populations when the conservation needs of a species would be served by doing so, this amendment relaxes certain restrictions otherwise applicable to listed species and authorizes the Secretary to relax others These regulations can even allow the taking of threatened animals The Committee . . . expects that, where appropriate, the regulations could allow for the direct taking of experimental populations. For example, the release of experimental populations of predators . . . could allow for the taking of these animals if depredations occur or if the release of these populations will continue to be frustrated by public opposition.³⁴⁹

Therefore, Congress originally intended liberal management of an experimental population.

The Interim Control Plan governs wolves naturally recovering in Yellowstone National Park or wolves reintroduced to the Park with-

343. *Id.* at 617-18; see *supra* note 308 and accompanying text.

344. *Id.*

345. S. REP. NO. 240, 100th Cong., 1st Sess. (1987), reprinted in 1988 U.S.C.C.A.N. 2700-18, 2705. "The States of Montana, Wyoming, and Idaho have maintained the [*Clark*] decision regarding threatened species might jeopardize the use of public hunting or trapping to control individual wolves of the experimental population when they occur outside the park." *Id.* at 2704.

346. *Id.* at 2705.

347. *Id.*

348. *Id. Sierra Club*, 755 F.2d at 617-18 (citing S. REP. NO. 418, 97th Cong., 2d Sess. 8 (1982), reprinted in 1982 U.S.C.C.A.N. 2807-08).

349. H.R. REP. NO. 567, 97th Cong., 2d Sess. (1982), reprinted in 1982 U.S.C.C.A.N. 2833-34.

out an experimental designation.³⁵⁰ If the reintroduced Park wolf population were designated experimental, state and federal agencies would be required to develop specific control plans for this population.³⁵¹ The Recovery Plan anticipates flexible management options in development of such plans.³⁵² These options include private takings of verified depredating wolves and sovereign delisting of wolves outside designated recovery zones.³⁵³

As with any endangered or threatened species, conservation strategies for an experimental Park wolf population must, as a bottom-line proposition, ensure the long term survival of the species. Nevertheless, reliance on the wide management flexibility of an experimental population, although the extent of which remains untested, should be encouraged.³⁵⁴

V. CONCLUSION

Although the gray wolf once held a place within the North American ecosystem, white settlers moving westward had little regard for this animal or its importance to the balance of nature. To them, the wolf had little or no value. Instead, it was an evil beast, dangerous to humans, livestock, and game animals. Thus, it had to be destroyed. From the mid-nineteenth through the mid-twentieth centuries, private individuals, local and state authorities, and federal agencies made concerted efforts to eradicate the wolf from the expanding United States. Today, the gray wolf faces extinction in the forty-eight contiguous states.

In 1973, Congress enacted the Endangered Species Act to protect species such as the wolf; species in danger of disappearing once and forever, even species traditionally seen as inimical to economic interests.³⁵⁵ For the last twenty years, the same groups responsible for the

350. WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-29.

351. *Id.* at 1-30; see QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS, *supra* note 166, at 3-5 for a discussion of the designation of an experimental population.

352. RECOVERY PLAN, *supra* note 11, at 27.

353. *Id.*

354. QUESTIONS AND ANSWERS ABOUT EXPERIMENTAL POPULATIONS, *supra* note 166, at 8-11; WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-36 to 1-41; RECOVERY PLAN, *supra* note 11, at 25-28. "Without actually observing wolf pack behavior in the Yellowstone area, it is not possible to predict exactly how much protection the wolf would require outside park boundaries for a viable population to develop and be maintained within the [Greater Yellowstone Area]." WOLVES FOR YELLOWSTONE, *supra* note 46, at 1-13.

355. If recovered, wolves may in fact take on an economic value ignored by local interest groups such as hunters, ranchers, and outfitters; namely, the attraction of tourists:

[W]olves don't wait at school-bus stops, don't dig up graves, don't lurk waiting to attack. What wolves do, it turns out, is bring in business. The eerie howls of wolves released in 1987 into North Carolina's Alligator River National Wildlife Refuge—one step removed from the limelight of a national park—has become a

wolf's demise have made efforts pursuant to the ESA to recover this species from the brink of extinction. There are more than three habitats biologically suitable for Northern Rocky Mountain Wolf recovery. Yet only three areas meet both biological and human tolerance-based standards. The threshold of human acceptance, while not strictly a biological component of wolf habitat, has proven to be the most decisive issue to date in wolf recovery efforts.

In 1987, FWS determined that the three areas crucial to Northern Rocky Mountain Wolf conservation are within Wyoming, Montana, and Idaho. Specifically, FWS proposes Yellowstone National Park as one such area. Despite the researchers' findings and ESA mandates to protect and recover listed species such as the wolf, not one confirmed report of wolves in the Park exists. Economics and politics remain a persistent catalyst in the destiny of the wolf within the Park.

All parties for and against the Northern Rocky Mountain Wolf Recovery Plan are in a "holding pattern," waiting to see who might make the next move. Unwittingly, they have taken the wolf by the ears. The question that Congress and these groups must ask themselves is whether the deliberate choice to do nothing is the right one to be made. Significantly, Congress has approved Interior funding for the development of an EIS regarding wolves in the Park. Nevertheless, actual Park wolf reintroduction remains only a distant possibility.

None of the interested parties should shirk the task at hand. The wolf has returned to the northern Rocky Mountain area, and will keep coming with or without the aid of man. The advent of its return marks a unique opportunity for all parties in exercising theoretical ESA options in a real-life scenario. Whether going forward with an EIS, pursuing legal action to mandate implementation of a recovery effort, establishing state wolf conservation cooperative agreements, or lobbying Congress regarding wolf reintroduction or the ESA itself, efforts in one of these venues should be made lest the chance to do so be forever lost.

major tourist attraction. Manteo, [North Carolina] has even adopted the animal as its symbol.

Sharon Begley et al., *The Rescue of the Reds in Return of the Wolf*, NEWSWEEK, Aug. 12, 1991, at 44, 48-49.