COMING TO TERMS WITH WILDERNESS: THE WILDERNESS ACT AND THE PROBLEM OF WILDLIFE RESTORATION

BY

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The Wilderness Act of 1964 calls for the preservation of certain areas in their natural, untrammeled condition. Even as wilderness preservation continues to be among the most popular of environmental causes, federal land management agencies have encountered various dilemmas in fulfilling their preservationist obligations. The Wilderness Act was designed to protect these areas from direct and immediate human disturbances, but serious questions are raised about the legal meaning of "wilderness" when the areas are deemed threatened by human-induced changes occurring on a much wider, or even global, scale. Some have advocated for increased interventions into the natural ecologies of wilderness areas, including an emphasis on restoring wildlife populations, in order to preempt or counteract such changes. This Article contends, however, that whatever "wilderness" is, it cannot be something that depends upon the active manipulation of humans for its continued existence. While it is commendable to strive to restore ecosystems that have been unduly degraded due to human behaviors, the Wilderness Act recognized the value of keeping some areas beyond humans' manipulative reach altogether—even if such interference is well-meaning.

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I. INTRODUCTION

With its passage of the Wilderness Act[1] in 1964, Congress formally recognized as a policy of the United States the preservation and protection for present and future Americans "the benefits of an enduring resource of wilderness."[2] To fulfill this basic purpose, Congress established a National Wilderness Preservation System (NWPS) composed of congressionally designated wilderness areas, to be administered to ensure "the preservation of their wilderness character."[3] Using poetic language atypical of congressional legislation, Congress defined "wilderness"—a term with much historical and cultural baggage—as "an area where the earth and its community of life are *untrammeled by man*, where man himself is a visitor who does not remain," as opposed to those areas "where man and his own works dominate the landscape."[4] Since the passage of the Act, federal land agencies have particularly struggled to balance the diverse values wilderness areas were meant to promote.[5] The Wilderness Act was designed to protect these areas from human "trammeling" primarily on a local scale by minimizing direct, *intentional* physical disturbances. Yet, serious questions are raised about the Act's conception of wilderness and its mandate to preserve "wilderness character" when the communities of life within the areas are deemed threatened not by direct and immediate human impacts,

1 Pub. L. No. 88-577, 78 Stat. 890 (1964) (codified as amended at 16 U.S.C. §§ 1131–1136 (2006 & Supp. II 2008)), *amended by* Pub. L. No. 111-11.

2 16 U.S.C. § 1131(a)(2006).

3 *Id.*

4 *Id.* § 1131(c) (emphasis added).

5 As early as 1973, the U.S. Forest Service (USFS) recognized the need for comprehensive guidance on the question of wilderness management. In that year, USFS sponsored a study to outline wilderness management issues and to provide systematic guidance on its resolution. The results of this study were published as JOHN C. HENDEE, GEORGE H. STANKEY & ROBERT C. LUCAS, U.S. FOREST SERV., WILDERNESS MANAGEMENT (1st ed. 1978). The authors emphasized the increasing importance of wilderness management based on the "growing pressures of wilderness use and man's indirect impacts on all lands." *Id.* at 1.

but by human-induced changes—such as climate change or habitat loss—occurring on a much wider scale.[6]

Interventions to restore wildlife populations in wilderness areas have incited much controversy in recent years. Each instance has exemplified the dilemmas facing land managers (and wilderness advocacy groups) as they attempt to address the apparent tensions embedded in the legal regime of wilderness preservation. In one recent case, for example, Wilderness Watch and other environmental groups challenged the construction of water tanks in the Kofa Wilderness Area of Arizona.[7] Because the tanks were meant to rehabilitate and stabilize populations of bighorn sheep (*Ovis canadensis*) in the area, the U.S. Fish and Wildlife Service (FWS) defended its action as necessary for the conservation of that species, which it held to be an important purpose of that particular wilderness designation, if not of wilderness protection generally.[8] Wilderness Watch and the other plaintiffs took a different view, contending that the structures, rather than preserving wilderness character of the area, in fact—represented an intentional manipulation of the area's natural conditions—just the sort of management activity Congress intended to prohibit.[9] The court thus faced the apparent paradox between wildness and pristine naturalness. It had to choose between allowing land managers to deliberately manipulate the ecology of the area in order to preserve their view of what was "natural" to it—thereby depriving the area of its wildness—or restricting the ability of land managers to preserve their view of the "natural" in order to maintain the area's wildness or freedom from human control.

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6 In 1999, David Cole and W.E. Hammitt presented a paper at a forest management conference in which they pointed to this problem as one to which research attention should be devoted, articulating the dilemma in their abstract as follows: "Increasingly, wilderness managers must choose between the objective of wildness ('untrammeled' wilderness) and the objectives of naturalness and solitude." David N. Cole & William E. Hammitt, *Wilderness Management Dilemmas: Fertile Ground for Wilderness Management Research*, *in* 1 WILDERNESS SCIENCE IN A TIME OF CHANGE CONFERENCE (May 23–27, 1999), USFS RMRS-P-15-VOL-1, at 58, 58 (David N. Cole et al. eds., 2000), *available at* http://www.fs.fed.us/rm/pubs/rmrs_p015_1/rmrs_p015_1_001_004.pdf. Nathan Stephenson and Constance Millar recently pointed to the wildness versus naturalness debate as a key predicament facing wilderness managers. They stated the question this way: "If untrammeled was meant to refer to an absence of intentional human influences, what are we to make of pervasive *unintentional* human influences, like anthropogenic climatic change?" Nathan L. Stephenson & Constance I. Millar, *Climate Change: Wilderness's Greatest Challenge*, PARK SCI., Winter 2011–12, at 34, 34. Daniel T. Spencer recently explored this dilemma as an ethical one: "As human-induced pressures on ecological integrity increase . . . so too will the opportunities for and pressures to carry out ecological restoration in wilderness. Yet such actions constitute a dilemma for wilderness managers and the interested public, as restoration necessarily entails the deliberate manipulation of ecosystems and ecological processes—even if only short-term—that violate the spirit and perhaps the law as embedded in the Wilderness Act." Daniel T. Spencer, *Recreating [in] Eden: Ethical Issues in Restoration in Wilderness*, *in* PLACING NATURE ON THE BORDERS OF RELIGION, PHILOSOPHY AND ETHICS, at 45, 63 (Forrest Clingerman & Mark H. Dixon eds., 2011).

7 Wilderness Watch, Inc. v. U.S. Fish & Wildlife Serv., 629 F.3d 1024, 1026 (9th Cir. 2010).

8 *Id.* at 1031–32.

9 Plaintiffs-Appellants' Opening Brief at 13, *Wilderness Watch*, 629 F.3d 1024 (9th Cir. 2010) (No. 08-17406), 2009 WL 3172210.

This same sort of dilemma has also arisen in two other legal disputes—one involving the use of helicopters (generally forbidden in wilderness areas) to target and collar reintroduced gray wolves (*Canis lupus irremotus*) and their offspring in the Frank Church-River of No Return Wilderness Area in central Idaho,[10] and the other involving the use of chemicals to eradicate certain species of trout in order to restock streams in the Carson-Iceberg Wilderness of California with Paiute cutthroat trout (*Oncorhynchus clarkii seliniris*).[11] In each of these cases, the species being restored was regarded as "native" to the area and therefore essential to its "naturalness," a fact used by land managers to justify their ecological interventions, despite the corresponding loss of wildness and the harm to recreationists' "opportunities for solitude" in encountering the projects during their implementation.[12]

This Article contends that, whatever "wilderness character" means, it cannot be something that depends upon the active manipulation of humans. While ecological interventions have been rationalized based on the threats posed to ecosystems and their constituent species from human-induced changes on a regional, national, or global scale, these threats do not justify further interventions into the natural processes within wilderness areas. These projects, whose purposes are to restore (or redirect) natural processes through the exercise of human agency, are precisely the intrusions of human culture that the Wilderness Act meant to exclude from these special places.[13] One of the often-overlooked anthropocentric purposes that motivated the protection of wilderness areas was that they were essential to inspiring humility—thought to be an endangered virtue in modern society—among human visitors. Land managers should exercise this same humility in dealing with wilderness areas, lest they lead us down a path to where there are no longer any places that are truly "wild," no places beyond the control of human institutions and cultural imperatives.

This Article proceeds in four parts. Part II discusses the three controversies introduced above in more detail. Part III analyzes the level of deference courts should grant to agencies in interpreting and implementing the Wilderness Act, concluding that agencies have received (and indeed should receive) much less deference in the wilderness context than in other public land controversies. Part IV examines the substantive standards contained in the Wilderness Act, with particular attention paid to its purposes, its definitions of "wilderness" and "wilderness character," and its management directives for wilderness areas—directives which avoid the contradictions many scholars, courts, and agencies have pointed to as justifying wider discretion for agencies in implementing the Act. Part V applies these standards contained in the Wilderness Act to the three recent controversies involving

10 Wolf Recovery Found. v. U.S. Forest Serv., 692 F. Supp. 2d 1264, 1268 (D. Idaho 2010).

11 Californians for Alternatives to Toxics v. U.S. Fish & Wildlife Serv., 814 F. Supp. 2d 992, 997, 1000 (E.D. Cal. 2011).

12 *See id.* at 1015–16; *Wolf Recovery Found.*, 692 F. Supp. 2d at 1268–69.

13 *See* Wilderness Act, 16 U.S.C. § 1131 (2006) (declaring the Act's purpose and defining the term "wilderness").

attempts of agencies to intervene into the ecologies of wilderness areas for the purposes of preserving their "wilderness character."

II. RECENT ECOLOGICAL INTERVENTIONS IN WILDERNESS AREAS FOR PURPOSES OF WILDLIFE RESTORATION

Federal land agencies have struggled to balance the diverse values that wilderness areas have been found to provide (including some perhaps not contemplated by the members of Congress who passed the legislation). In particular, serious questions are raised about the Act's definition of wilderness and its mandate to preserve the wilderness character when the ecological processes within the areas are deemed threatened, not by the direct and immediate human impacts that Congress intended to exclude from such areas,[14] but by human-induced changes occurring on a much wider scale. Measures that have been taken include the setting or containment of fires to replicate natural processes,[15] the eradication of invasive species with mechanical or chemical treatments,[16] the provision of artificial water supplies to aid certain species,[17] the promotion of native vegetative recovery[18] and curtailment of soil erosion,[19] and the reintroduction of native species.[20] Three recent examples of management interventions in wilderness areas to restore species populations perceived to be threatened by broader human-induced changes to the natural environment include: the construction of water tanks in the Kofa Wilderness Area to enhance water supplies for the declining populations of bighorn sheep,[21] the use of helicopters to aid in the restoration of gray wolf populations in the River of

14 *See id.*

15 WILLIAM C. FISCHER, U.S. FOREST SERV., WILDERNESS FIRE MANAGEMENT PLANNING GUIDE 5 (1984) (providing examples of fire management in wilderness areas and defining "wilderness fire management" as "the deliberate response to and use of fire through the execution of technically sound plans under specific prescriptions for the purpose of achieving stated wilderness management objectives"), *available at* http://www.fs.fed.us/rm/pubs_int/int_gtr171.pdf.

16 *See, e.g.*, *Californians for Alternatives to Toxics*, 814 F. Supp. 2d at 997 (noting how FWS used poison to eliminate non-native fish species).

17 *See, e.g.*, *infra* Part II.A (discussing the FWS project to restore bighorn sheep in the Kofa wilderness).

18 *See, e.g.*, Gary Vequist, *Ecological Restoration of Degraded Wilderness Ecosystems: Removing Exotic Plants and Introducing Prescribed Fire to Restore Natural Diversity in Two National Park Wilderness Areas*, *in* SCIENCE AND STEWARDSHIP TO PROTECT AND SUSTAIN WILDERNESS VALUES: EIGHTH WORLD WILDERNESS CONGRESS SYMPOSIUM (Sept. 30–Oct. 6, 2005), USFS RMRS-P-49, at 506, 507 (Alan Watson et al. comps., 2007), *available at* http://www.fs.fed.us/rm/pubs/rmrs_p049.html (describing the exotic plant management component of the Theodore Roosevelt National Park restoration plan).

19 *See, e.g.*, J. Dan Abbe, *Wilderness Restoration: Bureau of Land Management and the Student Conservation Association in the California Desert District*, *in* SCIENCE AND STEWARDSHIP TO PROTECT AND SUSTAIN WILDERNESS VALUES: EIGHTH WORLD WILDERNESS CONGRESS SYMPOSIUM, *supra* note 18, at 526 (noting such techniques as erosion control that have been used to rehabilitate hundreds of miles of unauthorized vehicle ways in various California Wilderness Areas).

20 *See, e.g.*, *infra* note 58 and accompanying text.

21 *See infra* Part II.A.

No Return Wilderness Area,[22] and the use of chemicals to eradicate "non-native" species from streams so as to restore "native" trout in the Carson-Iceberg and Bob Marshall wilderness areas.[23] This Part provides some background material on these interventions.

A. Restoration of Bighorn Sheep in the Kofa Wilderness

In May of 2007, FWS authorized the construction of two water installations in the Kofa Wildlife Refuge and Wilderness Area for the aid of bighorn sheep populations.[24] This action was just one in a long line of legal actions taken to protect that species—a line which goes back to at least 1939, when President Franklin D. Roosevelt established the Kofa Game Refuge.[25] According to FWS and the Arizona Game and Fish Department (AGFD), bighorn sheep were "a driving factor in the establishment of the refuge," and maintaining their population numbers has been a management focus ever since.[26] In 1976, the Range was incorporated into the wildlife refuge system, and then in 1990, roughly 510,000 acres of the Refuge's 665,400 acres were designated as a wilderness area, arguably as an effort to give even greater protections for wildlife, including bighorn sheep.[27]

A sharp decline in bighorn sheep from over 800 in 2000 to fewer than 400 in 2006 prompted FWS's and AGFD's heightened concerns for that species. Together, the agencies studied the problem and issued a report with their recommended actions in April of 2007.[28] While the drop in population numbers from 2000 to 2006 might seem alarming at first glance—indeed, it was "the first time since 1980 that the population estimate was below 600 bighorn and represents the sharpest drop recorded"—FWS acknowledged that there was "evidence to suggest that this decline may not be unprecedented."[29] Specifically in the 1960s and 1970s, bighorn numbers were between 200 and 375 before "burgeoning into the 800s in the 1980s and 1990s."[30] Still, based on the recent decline in population figures, FWS and AGFD recommended, among other actions, that the agencies begin the

22 *See infra* Part II.B.

23 *See infra* Part II.C.

24 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 9. The McPherson tank was located entirely within the wilderness area; the Yaqui tank, while not itself within the wilderness, used two diversion structures that were. *Id.* at 10 n.12.

25 Exec. Order No. 8,039, 4 Fed. Reg. 438 (Jan. 25, 1939).

26 U.S. FISH & WILDLIFE SERV. AND ARIZ. GAME & FISH DEPT., INVESTIGATIVE REPORT AND RECOMMENDATIONS FOR THE KOFA BIGHORN SHEEP HERD 4 (2007), *available at* http://www.fws.gov/southwest/refuges/arizona/kofa/docs/031479%20attachment.Kofa%20NWR-AGFD%20Bighorn%20sheep%2004-17-2007.pdf [hereinafter KOFA INVESTIGATIVE REPORT].

27 Arizona Desert Wilderness Act of 1990, tit. I, § 101(a), 104 Stat. 4469 (1990) (codified as amended at 16 U.S.C. § 460ddd (2006)).

28 KOFA INVESTIGATIVE REPORT, *supra* note 26, at 4.

29 *Id.* at 6.

30 *Id.*

formal planning process for "major water renovations or new water developments."[31]

The following month, FWS prepared a "minimum requirements analysis" to determine the legality under the Wilderness Act of constructing two new water structures within the Kofa Wilderness.[32] While it found that no emergency made the tanks necessary and could point to no special provision allowing their construction, FWS stated that the project's purpose was to "restore and maintain" wildlife and the "overall condition of the refuge" such that it would not denigrate the wilderness "as a whole."[33] Regarding their obligations under the National Environmental Policy Act (NEPA),[34] FWS issued a categorical exclusion—essentially a declaration that the action would not significantly affect the human environment, either individually or in the cumulative—thereby allowing the parties to proceed without following NEPA's prescribed procedures.[35] FWS thereafter acted quickly, and on May 30, 2007, it authorized the construction of the two proposed water installations—the McPherson and Yaqui tanks—in the Kofa Wilderness.[36] Within a few weeks, FWS, AGFD, and the Yuma Valley Rod and Gun Club had already constructed, using motorized vehicles and other heavy equipment, the 13,000-gallon Yaqui tank, and they were moving to begin on the McPherson tank.[37]

It was at this point, on June 13, 2007, that Wilderness Watch—a group "dedicated to keeping wild the lands and waters in the nation's 110 million-acre National Wilderness Preservation System"[38]—became aware of the Yaqui tank's construction and the agencies' plans to construct the second tank.[39] The agencies were not the only parties capable of acting swiftly. Two days later, Wilderness Watch joined several other conservation and

31 *Id.* at 10. The agencies also recommended the implementation of "predator control actions" on offending mountain lions, the removal of any livestock that stray onto the Refuge to control for disease, and the evaluation of seasonal closures to recreational use of "sensitive areas" to minimize human impacts. They did not recommend discontinuing or even reducing translocations of bighorn sheep from the Refuge to other habitats or cessation of hunting licenses for bighorn sheep. *Id.* at 10–20.

32 U.S. FISH & WILDLIFE SERV., KOFA NATIONAL WILDLIFE REFUGE CATEGORICAL EXCLUSION: YAQUI AND MCPHERSON TANKS REDEVELOPMENT PROJECTS (2007), *available at* http://www.azgfd.gov/pdfs/w_c/bhsheep/YaquiMcPherson-catexMRAMTA.pdf.

33 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 9.

34 National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4347 (2006).

35 According to Public Employees for Environmental Responsibility, "[t]he agency provided no public notice of—or opportunity to comment on—the [categorical exclusion] or the decision to construct the tanks. AGFD and the Yuma Valley Rod and Gun Club partnered with the FWS in . . . building the tanks." Press Release, Public Employees for Environmental Responsibility, Bighorns Shun Desert Water Tanks: Controversial Artificial Impoundments Failing Their Purpose (Sept. 15, 2009), http://www.peer.org/news/news-releases/2009/09/15/bighorns—shun-desert-water-tanks (last visited Feb. 17, 2013).

36 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 9–10.

37 *Id.*

38 Wilderness Watch, http://www.wildernesswatch.org (last visited Feb. 17, 2013).

39 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 11.

wilderness advocacy groups[40] in filing a lawsuit challenging the activities as violating the Wilderness Act and NEPA, and seeking a temporary restraining order to prevent construction of the McPherson tank.[41] While the agencies engaged in settlement negotiations with Wilderness Watch, the McPherson tank was built.[42]

All along, FWS insisted that the action was in accordance with its 1997 Operative Management Plan for the Kofa Refuge,[43] and with its management obligations both under its unofficial organic acts—the National Wildlife Refuge System (NWRS) Administration Act[44] and the NWRS Improvement Act[45]—and under the Wilderness Act's additional requirements and restraints.[46] The 1997 Plan described the preservation of desert bighorn sheep as the predominant "management theme" of the area.[47] As to the effect of the Wilderness Act on this primary management goal, the Plan noted that FWS was "responsible to carry out a dual, but nonetheless interrelated, role of managing for bighorn sheep within the context of wilderness," but it still ultimately concluded that "management of this species remains as one of the princip[al] missions of the Kofa [refuge]," though with additional procedural requirements.[48]

Recognizing it had a duty under the Wilderness Act "to maintain the natural character of the landscape," by using the "minimum tool" necessary to manage for bighorn sheep restoration, the Plan reasoned that the needs of the sheep and the Wilderness Act's obligations were complementary rather than in conflict. In short, "the habitat management work done to benefit bighorn sheep, including water development, could have a positive influence on the natural cycles of predation and succession for a diversity of life in the desert without detraction of wilderness attributes and values."[49]

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40 The other groups included the Arizona Wilderness Coalition, Sierra Club, Western Watersheds Project, and Grand Canyon Wildlands Council. *Id.* at i.

41 The NEPA claims, which are beyond the scope of this Article, were based on the issuance of the categorical exclusion and on the agency's alleged failure to provide public notice or to allow for comment. *Id.* at 11–12.

42 *Id.* at 11.

43 U.S. FISH & WILDLIFE SERV. AND ARIZ. FISH AND GAME DEP'T., KOFA NATIONAL WILDLIFE REFUGE AND WILDERNESS AND NEW WATER MOUNTAINS WILDERNESS INTERAGENCY MANAGEMENT PLAN, ENVIRONMENTAL ASSESSMENT, AND DECISION RECORD (1996), *available at* http://library.fws.gov/CMP/kofa_cmp96.pdf [hereinafter KOFA MANAGEMENT PLAN].

44 National Wildlife Refuge System Administration Act of 1966, Pub. L. No. 91-135, 83 Stat. 275 (codified as amended at 16 U.S.C. §§ 668dd, 668ee (2006)), *amending* Pub. L. No. 89-669, §§ 4, 5, 80 Stat. 926, 927.

45 National Wildlife Refuge System Improvement Act of 1997, Pub. L. No. 105-57, 111 Stat. 1252 (codified as amended at 16 U.S.C. §§ 668dd, 668ee (2006)), *amending* National Wildlife Refuge System Administration Act of 1966, Pub. L. No. 89-669.

46 *See Wilderness Watch*, 629 F.3d 1024, 1032 (9th Cir. 2010) (citing to the Wilderness Act's prohibition on developing "structures or installations" in a Wilderness Area "except as necessary to meet minimum requirements for the administration of the area," 16 U.S.C. § 113(c).

47 KOFA MANAGEMENT PLAN, *supra* note 43, at 2.

48 *Wilderness Watch*, 629 F.3d at 1035 (quoting KOFA MANAGEMENT PLAN, *supra* note 43, at 36–37).

49 *Id.* at 1035–36 (quoting KOFA MANAGEMENT PLAN, *supra* note 43, at 39–40).

Wilderness Watch and its co-plaintiffs alleged violations of the Wilderness Act based both on the construction of the water tanks (as forbidden "permanent structures") and the use of backhoes and trucks (generally prohibited as "motorized vehicles") in constructing them.[50] In particular, they contended that the structures, instead of preserving the area's wilderness character, in fact "modif[ied] natural conditions in the wilderness and were built to artificially inflate populations of bighorn sheep."[51] FWS admitted that the water tanks constituted a "structure or installation" generally prohibited by the Wilderness Act,[52] but contended that the water tanks fit within the exception allowing such developments when "necessary to meet minimum requirements for the administration of the area for the purpose of the [Wilderness Act]."[53] The structures fell within this exception, FWS claimed, because conserving bighorn sheep populations was within a "purpose" of the Act and these structures were necessary for achieving that purpose.[54]

Resolution of this claim would ultimately depend upon the court's interpretation of Wilderness Act provisions, including the Act's purpose, its definition of "wilderness character," and the meaning of the exception allowing for structures where necessary for administering the area for the purpose of the Act.

B. Tracking of Gray Wolves in the River of No Return Wilderness

In December of 2009, the U.S. Forest Service (USFS) issued a special use permit to the Idaho Department of Fish and Game (IDFG), authorizing the use of helicopters in tracking reintroduced gray wolves and their offspring in the Frank Church-River of No Return Wilderness in central Idaho.[55] Congress designated this area as wilderness in 1980, and at 2.3 million acres in size, it is the largest contiguous wilderness area in the United States outside of Alaska.[56] For decades, gray wolves had been listed as an endangered species under the Endangered Species Act (ESA).[57] As part

50 *Id.* at 1032–33.

51 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 13.

52 *Wilderness Watch*, 629 F.3d at 1032 (citing Wilderness Act, 16 U.S.C. § 1133(c)(2006)).

53 *Id.* (citing 16 U.S.C. § 1133(d)).

54 *Id.*

55 U.S. FOREST SERV., DECISION MEMO: SPECIAL USE AUTHORIZATION TO IDAHO FISH AND GAME FOR HELICOPTER LANDINGS AND AERIAL DARTING TO SUPPORT GRAY WOLF CAPTURE AND COLLARING IN THE FRANK CHURCH-RIVER OF NO RETURN WILDERNESS 2–3 (2009), *available at* http://wildernesswatch.org/pdf/dm_heli_landings_122209.pdf [hereinafter USFS SPECIAL USE AUTHORIZATION].

56 Central Idaho Wilderness Act of 1980, Pub. L. No. 96-312, 94 Stat. 948 (codified as amended at 16 U.S.C. § 1132 (2006)).

57 Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2006 & Supp. II 2008); 39 Fed. Reg. 1171, 1175 (Jan. 4, 1974) (codified as amended at 50 C.F.R. § 17.11) (placing the rocky mountain gray wolf among the first list of species protected under the 1973 ESA); *see also* Roberta A. Klein, *Wolf Recovery in the Northern Rockies*, *in* FINDING COMMON GROUND: GOVERNANCE AND NATURAL RESOURCES IN THE AMERICAN WEST 88, 88 (Ronald D. Brunner et al. eds., 2002).

of the program for rehabilitating gray wolf populations, thirty-five wolves were reintroduced into central Idaho in the mid-1990s.[58] Due to the success of this program, in 2009 FWS delisted the wolves in the northern Rocky Mountain region, including not only Idaho, but also Montana, eastern Oregon and Washington, and northwest Utah,[59] thereby allowing the federal government to turn over wolf management to these states.[60] Although the species was no longer considered endangered, the ESA required the gray wolf population to be monitored for at least five years to ensure that the state's management plan was effective in ensuring the species' continued recovery.[61] It was ostensibly to fulfill its monitoring obligations under the ESA that IDFG claimed it needed dozens of helicopter landings per year and the use of tranquilizer darts to radio-collar wolves so that it could locate and track their populations within the wilderness area.[62] Such was necessary, according to IDFG, "to ensure the long-term viability of the gray wolf population."[63] For its part, USFS claimed, in issuing the permit in December of 2009, that the information gathered would "further efforts to manage and protect the wilderness character of the area," which it saw as including "the presence of natural predators and predator-prey relationships."[64]

The plan immediately came under fire from environmentalist groups. Less than two weeks after the permit issued, the Wolf Recovery Foundation, an Idaho non-profit group founded two decades earlier for the purposes of protecting wild wolf communities, and the Western Watersheds Project, a group headquartered in Idaho whose purpose is the conservation of watersheds in the American West, filed suit in federal court challenging the use of helicopters in the wilderness area.[65] They also contested the Department of Agriculture's policy towards livestock grazing in the nearby Sawtooth National Recreation Area and its targeted killings of wolf populations to protect such livestock.[66] These environmental groups alleged that both the state's and the federal government's purposes in tracking gray wolves were to aid in the killing of wolves to reduce conflicts with grazing and to justify raising the number of authorized takings.[67] Their specific claims under the Wilderness Act alleged that IDFG had not made a showing regarding either the necessity of helicopter use for the gathering of

58 IDAHO DEP'T OF FISH & GAME, IDAHO WOLF POPULATION MANAGEMENT PLAN 2008–2012, at 4 (2008), *available at* http://fishandgame.idaho.gov/public/docs/wolves/plan08.pdf.

59 Final Rule to Identify the Northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment, 74 Fed. Reg. 15,123, 15,123 (Apr. 2, 2009) (codified at 50 C.F.R. § 17.11).

60 *Id.* For a discussion of the wolf recovery plan under the ESA, see Klein, *supra* note 57.

61 USFS SPECIAL USE AUTHORIZATION, *supra* note 55, at 2.

62 *Id.* at 1–2.

63 IDAHO DEP'T OF FISH & GAME, *supra* note 58, at 19.

64 USFS SPECIAL USE AUTHORIZATION, *supra* note 55, at 2.

65 First Amended Complaint at 2, Wolf Recovery Found. v. U.S. Forest Serv., 692 F. Supp. 2d 1264 (D. Idaho 2010) (No. 09-CV-686-BLW), 2010 WL 1861698.

66 *Id.*

67 *Id.* at 20–21.

information on wolf populations, or that such information was necessary for the preservation of wilderness values.[68]

Resolution of this claim would ultimately depend upon the court's interpretation of Wilderness Act provisions, including the Act's purpose, its definition of "wilderness character," and the meaning of the exception allowing for helicopter use where necessary for administration of the wilderness area.

C. Restoration of Paiute Cutthroat Trout in the Carson-Iceberg Wilderness

In May of 2010, FWS approved a plan by the California Department of Fish and Game (CDFG) not just to protect or to restore a particular species, but to do so by killing others.[69] This plan called for the eradication of non-native trout species and the restocking of native Paiute cutthroat trout (PCT) in the Silver King Creek watershed of Carson-Iceberg Wilderness Area of California, a 160,000 acre area south of Lake Tahoe along the crest of the Sierra Nevada mountain range.[70] Unlike the bighorn sheep at issue in the Kofa Wilderness or the gray wolves in the River of No Return Wilderness, however, the restored Paiute cutthroat trout were a listed species under the ESA.[71] The project's goal was not just to raise the species' population numbers to carrying capacity, but to prevent the sub-species from going extinct and ultimately to restore it to a level that would justify its removal from the Federal threatened species list.[72]

This plan was far from unprecedented. The CDFG had for decades engaged in the stocking of non-native trout in streams and lakes throughout the state.[73] Ironically, the endangerment upon which FWS attempted to justify the eradication and restocking was arguably caused by the stocking of the Silver King Creek with rainbow trout (*Oncorhynchus mykiss*), Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*), and California golden trout (*Oncorhynchus mykiss aguabonita*), all of which threatened native trout through increased competition for resources and interbreeding.[74] The CDFG had also previously used rotenone (a naturally occurring broad-spectrum piscicide, herbicide, and insecticide used in fisheries management) to poison non-native trout so that native trout could be restored in stream and lake systems throughout the state, including in other stretches of the

68 *Id.* at 20.

69 U.S. FISH & WILDLIFE SERV., RECORD OF DECISION: PAIUTE CUTTHROAT TROUT RESTORATION PROJECT 2 (2010) [hereinafter PCT ROD].

70 U.S. FISH & WILDLIFE SERV. AND CAL. DEP'T OF FISH & GAME, PAIUTE CUTTHROAT TROUT RESTORATION PROJECT: FINAL ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT at 1-2 (2010) [hereinafter PCT FEIS]. The area was designated a part of the NWPS as part of the California Wilderness Act of 1984, Pub. L. No. 98-425, § 101(2), 98 Stat. 1619 (codified as amended at 16 U.S.C. § 1132 note).

71 *See* 50 C.F.R. § 17.11 (2011) (Endangered and Threatened Wildlife).

72 PCT FEIS, *supra* note 70, at 1-1.

73 *Id.* at 2-8.

74 Complaint for Declaratory and Injunctive Relief at 7, *Californians for Alternatives to Toxics*, 814 F. Supp. 2d 992 (E.D. Cal. 2011) (No. 2:10-CV-01477-FCD-KJM), 2010 WL 2963020.

Silver King system.[75] Indeed, even this particular project had been proposed a number of times in the past decade.[76]

During the comment period prior to issuing the Final Environmental Impact Statement and Record of Decision, many commenters objected to the project on the grounds that the use of rotenone was inconsistent with the Wilderness Act and would adversely affect wilderness values.[77] In approving the plan, FWS and CDFG indeed acknowledged that the project would negatively impact wilderness character, at least in the short term.[78] First, they admitted that the action "would impair the untrammeled quality of wilderness," since it was "an intentional human caused manipulation of ecological systems inside wilderness." Second, they recognized that it would "impair the natural quality of wilderness," both due to the level of human occupation required to implement it, and the effect of the rotenone on the appearance of the water.[79] In addition, they indicated that the project would "impair the undeveloped quality of wilderness" with its use of motorized equipment, including the use of motorized volumetric augers to dispense the neutralizing agent downstream.[80] The sights and sounds of such equipment, all "associated with civilization," would impair the area's opportunity for solitude, while the eradication of non-native trout would result in "short-term impacts on solitary fishing opportunities."[81] However, the agencies concluded that the eradication of non-native trout and the restocking of a native species would be "consistent with wilderness values,"[82]and would indeed "improve the naturalness of the Wilderness area" in the long term.[83]

A number of environmental groups, including Californians for Alternatives to Toxics, Wilderness Watch, and the Friends of Silver King Creek, instituted an action for an injunction against the eradication and restocking.[84] Their action included claims under NEPA, the California Environmental Quality Act (CEQA),[85] and the Wilderness Act.[86] Their allegations echoed some of what the agencies admitted in their decision

75 PCT FEIS, *supra* note 70, at 2-2.

76 In May of 2002, the CDFG proposed the plan and the USFS (which has jurisdiction over the Wilderness Area) approved the project, but a lawsuit prompted the USFS to withdraw the approval pending a full NEPA review. Complaint for Declaratory and Injunctive Relief, *supra* note 74, at 8–9. Two years later, the USFS approved the same plan with an Environmental Assessment (EA) and a "finding of no significant impact"; this decision was also challenged, and after a court issued a preliminary injunction against the project, the USFS again withdrew its approval. *Id.* at 9–10. All of this led the USFS and CDFG to institute a full EA under NEPA and the California Environmental Quality Act (CEQA), the result of which was the approval of the project in May of 2010. *See Californians for Alternatives to Toxics*, 814 F. Supp. 2d at 999.

77 *See* PCT FEIS, *supra* note 70, at 2-7 to -9, app. F at F-32, -105, -117.

78 *Id.* at 5.7-2.

79 *Id.* at 5.7-3.

80 *Id.*

81 *Id.* at 5.7-3 to 5.7-4.

82 *Id.* at 5.10-6.

83 PCT ROD, *supra* note 69, at 11.

84 Complaint for Declaratory and Injunctive Relief, *supra* note 74, at 2.

85 California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000–21181 (West 2007).

86 *See Californians for Alternatives to Toxics*, 814 F. Supp. 2d 992, 996–98 (E.D. Cal. 2011).

documents, particularly that the occupation of the wilderness area by up to fifty people at a time would detract from its naturalness, as would the eradication of non-native trout and restocking actions themselves, however it was done.[87] They also argued, however, that the agencies failed to consider the negative impacts on other non-target species, including the "potential extinction of other species, [some] as rare and unique as PCT."[88] The plaintiffs contended that the loss of non-target species, together with the "alteration of terrestrial and aquatic food webs" and "indelible changes" to the composition of the community of life, were antithetical to the "natural conditions" that the Wilderness Act requires USFS to maintain.[89] Finally, they alleged that the restocking was unnecessary for the protection of PCT, since the sub-species had already been established in other portions of the stream system to an extent already exceeding its historic range, and that doing so could prove to be ineffective because restocking does not prevent reintroduction of non-native trout, whether through fish migration from downstream or illegal restocking.[90]

As with the other two controversies discussed above, resolution of this claim would ultimately depend upon the court's interpretation of Wilderness Act provisions, including the Act's purpose, its definition of "wilderness character," and the meaning of the exception allowing for motorized vehicles and equipment where necessary for administering the area for the purpose of the Act.

III. LEVEL OF JUDICIAL DEFERENCE OWED TO AGENCY INTERPRETATIONS OF THE WILDERNESS ACT

As noted in the previous Part, resolving each of the controversies regarding ecological interventions in wilderness depends upon the proper interpretation of certain provisions of the Wilderness Act. However, whether courts have the power to overturn the interpretations of land management agencies also depends upon the standard of review to be applied in such instances. That is the subject of this Part.

In determining the standard of review to be applied to agency decisions, courts must look first to the statutes under which the challenges to those decisions are brought. Because the Wilderness Act itself provides no private right of action, claims alleging violations of the Act are typically brought under the Administrative Procedure Act (APA),[91] which prescribes the scope and standard of judicial review for challenges to agency actions.[92] Under the APA, the standard of review depends first upon whether the challenged

87 *See* Complaint for Declaratory and Injunctive Relief, *supra* note 74, at 22.

88 *Id.* at 14.

89 *Id.* at 22.

90 *Id.* at 8.

91 5 U.S.C. §§ 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5372, 7521 (2006).

92 *See, e.g.*, Marsh v. Or. Natural Res. Council, 490 U.S. 360, 375 (1989); Clouser v. Espy, 42 F.3d 1522, 1527 n.5 (9th Cir. 1994), *cert. denied*, Clouser v. Glickman, 515 U.S. 1178 (1995).

decision is one of law, of fact, or of policy.[93] While courts review factual determinations under a "substantial evidence" standard[94] and policy questions under an even more lenient "arbitrary and capricious" standard,[95] the APA mandates that reviewing courts "shall decide all relevant questions of law, [and] interpret constitutional and statutory provisions."[96] Thus, it would seem that courts could overturn an agency's interpretation of the Wilderness Act based simply on the court's disagreement with it.

While the APA seems to direct courts to review agency interpretations of law de novo, courts have largely disregarded this provision as it applies to agency interpretations of statutes. The Supreme Court, for instance, in its 1984 decision in *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.* (*Chevron*),[97] faced the question of the appropriate level of deference to be given to the U.S. Environmental Protection Agency's definition of a statutory term in the Clean Air Act.[98] It resolved the issue without even citing to the APA, instead relying upon common law doctrines to establish a new two-part framework.[99] Under this test, a court must first ask whether the statutory language in question is ambiguous in regards to the challenged agency decision.[100] If not—i.e., if Congress has already unambiguously answered the question—then "that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."[101] In other words, if the agency's interpretation is consistent with the unambiguous statutory language, then it must be upheld; if inconsistent, it must be set aside. If, however, the court finds a statute to be ambiguous as to the challenged agency interpretation, the court must uphold it so long as it is "based on a permissible construction of the statute."[102] The Supreme Court went on to define a "permissible construction" as one which is "reasonable."[103]

93 *See* 5 U.S.C. § 706(2) (Scope of Review).

94 *Id.* § 706(2)(E).

95 *Id.* § 706(2)(A); Am. Paper Inst., Inc. v. Am. Elec. Power Serv. Corp., 461 U.S. 402, 412 n.7 (1983).

96 5 U.S.C. § 706. The APA essentially codified the standard of review promulgated by the Supreme Court decades earlier in *Interstate Commerce Comm'n v. Illinois Cent. R.R. Co.*, 215 U.S. 452 (1910). In that case, Justice Edward White, writing for the Court, held that in reviewing administrative orders, courts must look only at whether the agency had the necessary constitutional authority, whether Congress had delegated the appropriate powers, and whether the action constituted a reasonable exercise of its power. *Id.* at 470.

97 467 U.S. 837 (1984).

98 *Id.* at 840.

99 *Id.* at 842–45.

100 *Id.* at 842.

101 *Id.* at 842–43.

102 *Id.* at 843. The Court elaborated that, while "[t]he judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent," the court "need not conclude that the agency construction was the only one it permissibly could have adopted to uphold the construction, or even the reading the court would have reached if the question initially had arisen in a judicial proceeding." *Id.* at 843 nn.9 & 11.

103 The Court actually provided two different tests, one for when Congress "explicitly left a gap for the agency to fill," and the other for when delegation is merely implicit. If Congress left

Many commentators criticized the Supreme Court's opinion in *Chevron* for abdicating the judiciary's role in interpreting legislation.[104] Years later, the Supreme Court itself seemed to reconsider the merits of affording agencies such wide deference regarding legal questions. In the case of *United States v. Mead Corp.*,[105] the Supreme Court drastically limited the reach of its *Chevron* holding. It explained that an agency's implementation of a statutory provision qualifies for *Chevron* deference only "when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority."[106] In *Mead*, the Court ultimately refused to apply the *Chevron* standard of review based on the lack of explicit congressional delegation of authority to make rules, the lack of precedential impact, and the nonbinding effect of the action on third parties.[107]

Having decided that *Chevron* represented only the highest level of judicial deference, reserved for situations where Congress expressly delegated to the agency the power to make law through formal adjudications or rulemaking, the Court in *Mead* explained that some level of deference may still be warranted in the absence of such express authorizations from Congress.[108] The court reasoned that this lesser deference, often referred to as *Skidmore* respect,[109] applies where "the regulatory scheme is highly detailed," and where the agency "can bring the benefit of specialized experience to bear on the subtle questions."[110] In such cases, the degree of deference to the agency determination depends upon "the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control."[111] In all other situations (e.g., where the regulatory scheme is not highly detailed or the legal question does not implicate the specialized experience of the administrators), the agency's

a gap, the court must defer to an agency's interpretation unless it is "arbitrary, capricious, or manifestly contrary to the statute"; where delegation is implicit, courts must defer to agency interpretation so long as it is "reasonable." Because "arbitrary and capricious" is normally defined as lacking reasonableness, these standards are essentially the same. *See id.* at 843–44.

104 Peter A. Appel, *Wilderness and the Courts*, 29 STAN. ENVTL. L.J. 62, 97 (2010) [hereinafter *Wilderness and the Courts*] (citing Mark Seidenfeld, *A Syncopated* Chevron*: Emphasizing Reasoned Decisionmaking in Reviewing Agency Interpretations of Statutes*, 73 TEX. L. REV. 83 (1994)); Thomas W. Merrill & Kristin E. Hickman, Chevron*'s Domain*, 89 GEO. L.J. 833, 859 (2001)). *But see* Jack L. Landau, Chevron, USA v. NRDC*: The Supreme Court Declines to Burst EPA's Bubble Concept*, 15 ENVTL. L. 285, 288 (1985) (celebrating decision as a "welcome development" due to both "the approval of the bubble concept and the affirmation of the agency's discretion to develop such cost-minimizing reforms").

105 533 U.S. 218 (2001).

106 *Id.* at 226–27.

107 *Id.* at 231–34.

108 *Id.* at 234.

109 The standard was stated in the case of *Skidmore v. Swift & Co.*, 323 U.S. 134, 139–140 (1944).

110 *Mead*, 533 U.S. at 235.

111 *Skidmore*, 323 U.S. at 140; *see also* Christensen v. Harris Cnty., 529 U.S. 576, 587 (2000) (holding that the level of deference depends on whether the agency decision has the force of law).

interpretation is to receive no deference.[112] While the Supreme Court was criticized for abdicating its judicial responsibilities after its decision in *Chevron*, its opinion in *Mead* has been attacked for unduly complicating the law of judicial deference.[113]

Courts differ in how they apply the *Chevron-Mead* framework in the public lands context.[114] Most have granted great deference to agencies, so long as they stay within their often broadly conceived statutory mandates, while others have shown a greater willingness to scrutinize agency decisions.[115] Even as the majority of courts employ a deferential standard of review, environmental and conservationist groups have still enjoyed relatively high success rates in challenging land management decisions. Indeed, one study of cases from the 1970s to 1992 found that the rate of success was about 37% for challenges under USFS's principal management statute, the National Forest Management Act (NFMA),[116] and about 45% for challenges under NEPA.[117] That study also showed that environmental groups enjoyed greater success rates in challenging USFS decisions than

112 *See, e.g.*, John S. Kane, *Refining* Chevron*—Restoring Judicial Review to Protect Religious Refugees*, 60 ADMIN. L. REV. 513, 553, (2008) (noting that when agency expertise is not necessary to fully consider and understand an issue, "ground for deference is lacking").

113 *See, e.g.*, William S. Jordan III, United States v. Mead*: Complicating the Delegation Dance*, 31 ENVTL. L. RPTR. NEWS & ANALYSIS 11,425, 11,425 (2001); Lisa Schultz Bressman, *How* Mead *has Muddled Judicial Review of Agency Action*, 58 VAND. L. REV. 1443, 1464 (2005). Criticisms are not limited to the academic realm. More recently, Justice Scalia, who dissented in *Mead*, characterized the legal holding in *Mead* as "inscrutable," "irrational," "misguided," and ultimately "incomprehensible." Coeur Alaska, Inc. v. Se. Alaska Conservation Council, 557 U.S. 261, 295–96 (2009) (Scalia, J., concurring). Justice Scalia concluded by emphasizing that, while he favored overruling *Mead* altogether, he was "pleased to join an opinion that effectively ignores it." *Id.* at 296.

114 As Peter A. Appel noted, even in cases decided after *Chevron* and *Mead*, "courts often do not discuss which standard of review applies to the administrative decision, and in some instances leave it up in the air exactly what standard of review or principle of deference applies to the given controversy." Peter A. Appel, *Wilderness, the Courts, and the Effect of Politics on Judicial Decisionmaking*, 35 HARV. ENVTL. L. REV. 275, 299 (2011).

115 MARTIN NIE, THE GOVERNANCE OF WESTERN PUBLIC LANDS: MAPPING ITS PRESENT AND FUTURE 72–73 (2008). The Ninth Circuit seems to be a prime example of the latter group. In a 2003 opinion involving public land management, for instance, the Ninth Circuit reasoned that the APA, while prohibiting courts from substituting their judgments for those of agencies, means that the judiciary must "carefully review the record to ensure that agency decisions are founded on a reasoned evaluation of the relevant factors, and may not rubber-stamp . . . administrative decisions that [we] deem inconsistent with a statutory mandate or that frustrate the congressional policy underlying a statute." Friends of Yosemite Valley v. Norton, 348 F.3d 789, 793 (9th Cir. 2003) (quoting Pub. Citizen v. Dep't of Transp., 316 F.3d 1002, 1020 (9th Cir. 2003)), *clarified by* 366 F.3d 731 (9th Cir. 2004). The Ninth Circuit continues to follow that standard. *See, e.g.*, *Wilderness Watch*, 629 F.3d 1024, 1032 (9th Cir. 2010).

116 National Forest Management Act of 1976, 16 U.S.C. §§ 472a, 521b, 1600, 1611–1614 (2006) (amending Forest and Rangeland Renewable Resources Planning Act of 1974, Pub. L. No. 93-378, 88 Stat. 476 (1974)).

117 Elise S. Jones and Cameron P. Taylor, *Litigating Agency Change: The Impact of the Courts and Administrative Appeals Process on the Forest Service*, 23 POL'Y STUD. J. 310, 323 (1995).

pro-development litigants.[118] While USFS has still won more than it has lost, conservationist challengers have succeeded more than one might expect, given the deferential standards purportedly employed.

Courts appear to be even more favorable to environmentalist or conservationist litigants bringing claims under the Wilderness Act. As scholar Peter Appel recently demonstrated, courts have recognized the uniqueness of wilderness areas within the federal government's land portfolio and have seemingly asserted a substantial role in ensuring that the wilderness resource is protected.[119] In his review of judicial decisions regarding management of wilderness areas, Appel found that in cases where wilderness or environmental advocates have challenged agency decisions as not being sufficiently protective of the wilderness, agencies win only about 44% of the time.[120] This stands in marked contrast to those cases where agency actions are challenged for being too protective of wilderness, where agencies have been upheld roughly 88% of the time.[121] In summarizing the data, Appel found that "courts apply much more rigorous scrutiny of agency determinations that arguably detract from wilderness protection than the scrutiny they might apply in other contexts both within and outside of environmental law, and courts overwhelmingly vote to affirm agency actions that protect wilderness more than they might in other contexts."[122]

To explain why "agencies tend to receive unexpectedly high scrutiny of their decisions in the wilderness context,"[123] Appel cited a number of factors. First, he argued that the Wilderness Act seems to invite strict judicial construction through its absolutist definition of wilderness.[124] Second, wilderness protection has enjoyed overwhelming popular and political support.[125] Third, judges might be especially averse to the risk of losing a resource, such as wilderness, that can never be regained.[126] Fourth, wilderness advocacy groups are relatively well-funded and have retained excellent legal representation to pursue and argue their claims.[127] Finally,

118 *Id.* at 324–27. For a discussion of this and other studies and the role of the judiciary in overseeing, and thereby influencing, the decision-making of USFS, see NIE, *supra* note 115, at 199–204.

119 *Wilderness and the Courts*, *supra* note 104, at 66–67.

120 *Id.* at 66.

121 *Id.* at 66–67. Like this author, Appel lamented the lack of scholarly attention to "the legalistic niceties of defining wilderness," or to the "permitted and prohibited activities in wilderness." Instead, scholars have focused more on the need for preservation areas and on specific debates over adding new lands to the wilderness preservation system. *Id.* at 69.

122 *Id.* at 96.

123 *Id.* Appel's research also suggests that the political or ideological affiliation of judges has been largely insignificant in determining results in the wilderness context. *Id.* at 118–19; Appel, *supra* note 114, at 311. This differs from studies regarding environmental and public lands litigation more generally. *See* NIE, *supra* note 115, at 204 (noting that in the context of NEPA litigation, "[j]udges appointed by a Democratic president are much more likely to rule in favor of environmental plaintiffs . . . than Republican-appointed judges").

124 *Wilderness and the Courts*, *supra* note 104, at 119–20.

125 *Id.* at 120–21.

126 *Id.* at 121–22.

127 *Id.* at 122.

agencies might just be wrong more often in this context, perhaps due to their hostility toward the mandates of the Wilderness Act.[128]

Appel's points are well taken, but his analysis only takes us so far. He assessed why courts *have* asserted such an active role in ensuring wilderness protection, but he offered little rationale for why they *should* do so—that is, why a stricter standard of review (even if unspoken) is indeed appropriate in this context. To answer this question, one must first look to the legal and policy bases for courts to defer to agencies' statutory interpretations—traditionally the province of the judicial rather than the executive branch.[129] Scholars have advanced several legal and policy arguments in favor of administrative interpretation of statutes, including that such questions (though legal) often require a level of expertise held by administrators but not by judges; that the administration of statutes requires a level of flexibility not possible once a court assumes the role of interpreting statutory provisions; and that such interpretations typically involve the resolution of policy questions which are best left to the more politically accountable branches—to Congress, where it has spoken, and to agencies, where Congress has left a gap or ambiguity.[130]

None of the rationales for according agencies deference to interpret statutory provisions apply generally in the wilderness context. A basic premise of the Wilderness Act was that the value of wilderness areas, unlike other natural resource values, depended upon their being beyond human control or manipulation—their being *wild*.[131] In contrast to other public land management statutes, which typically authorize agencies to consider and

128 *See id.* at 123.

129 *See* Marbury v. Madison, 5 U.S. 137, 177 (1803) ("It is emphatically the province and duty of the judicial department to say what the law is.").

130 Kane, *supra* note 112, at 552–53, 561–71; David M. Hasen, *The Ambiguous Basis of Judicial Deference to Administrative Rules*, 17 YALE J. ON REG. 327, 363 (2000) (citing Russell L. Weaver, *A Foolish Consistency is the Hobgoblin of Little Minds*, 44 BAYLOR L. REV. 529, 558 (1992); Kenneth W. Starr, *Judicial Review in the Post-*Chevron *Era*, 3 YALE J. ON REG. 283, 312 (1986)). Maureen B. Callahan considered *Chevron* to be an exercise in judicial self-restraint, like other prudential standing doctrines, based on the judiciary's competence (or lack thereof) to decide particular questions. Maureen B. Callahan, *Must Federal Courts Defer to Agency Interpretations of Statutes?: A New Doctrinal Basis for* Chevron U.S.A. v. Natural Resources Defense Council, 1991 WIS. L. REV. 1275, 1289–90 (1991). These arguments seem to be supported by the Court's opinions in *Chevron* and *Mead*. In *Chevron*, the Court reasoned that, "The responsibilities for assessing the wisdom of [certain] policy choices and resolving the struggle between competing views of the public interest are not judicial ones . . . " *Chevron*, 467 U.S. 837, 866 (1984). In *Mead*, the Court repudiated *Chevron*'s blanket legal "presumption about Congressional intent" to delegate statutory interpretation authority to agencies, replacing it with the traditional presumption in favor of judicial interpretation. This presumption is rebutted where Congress's intent to delegate interpretive authority to agencies is explicit (in which case *Chevron* deference applies), and where courts lack the resources or expertise to define and evaluate complex statutory or regulatory schemes (in which case *Skidmore* respect applies). *Mead*, 533 U.S. 218 at 229–30 & n. 11; *c.f.* Kristin E. Hickman, *The Need for* Mead*: Rejecting Tax Exceptionalism in Judicial Deference*, 90 MINN. L. REV. 1537, 1553–54 (2006).

131 Wilderness Act, 16 U.S.C. § 1131 (2006) ("A wilderness, in contrast with those areas where man and his own works dominate the landscape, is . . . an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain.").

weigh diverse values through exercise of their scientific and policy expertise,[132] the Wilderness Act required certain areas to be managed predominantly for one use: wilderness preservation.[133] This legislation, therefore, reflected a distrust of agencies' abilities (especially that of USFS) to protect wilderness values if allowed any discretion to consider other values.[134] This distrust was based in part on USFS's perceived unreliability in protecting even its own administratively designated wilderness areas, beginning with the establishment in 1924 of the Gila Wilderness in New Mexico.[135] In an influential 1953 dissertation, for instance, Dr. James P. Gilligan called for the statutory protection of wilderness, reasoning that USFS was an untrustworthy ally of preservationists, given that even its administrative wilderness system was motivated primarily by a desire to protect its lands from being transferred to the National Park Service and that "it was never intended to reserve specified areas permanently from development."[136] Unlike all other land-management statutes, the Wilderness Act's basic purpose was not to delegate authority to expert agencies, but rather, to exclude certain lands from the application of the agencies' specialized expertise, to restrain agency flexibility, and to protect (with limited, narrow exceptions) certain lands from the impact of the sort of policy choices land managers typically make.[137]

Another limitation in Appel's analysis of Wilderness Act decisions is that it seemingly assumes an objective "wilderness" by which agency decisions are challenged as being either too protective of that wilderness or not protective enough. His analysis thus conforms to a continuum of wilderness management with industrial/extractive uses on one end, and

132 *See, e.g.*, National Forest Management Act of 1976, Pub. L. No. 94-588, § 6(g)–(h), 90 Stat. 2952, 2952–55 (codified as amended at 16 U.S.C. §§ 1600–1610 (2006)).

133 16 U.S.C. § 1131(a) (2006).

134 Tony Arjo, *Watershed and Water Quality Protection in National Forest Management*, 41 HASTINGS L.J. 1111, 1113 (1990); HAROLD K. STEEN, THE U.S. FOREST SERVICE: A HISTORY 313–14 (1976); Michael McCloskey, *The Wilderness Act of 1964: Its Background and Meaning*, 45 OR. L. REV. 288, 298 (1966).

135 In 1951, Howard Zahniser, who drafted the bill that would become the Wilderness Act, argued that statutory protection of wilderness was necessary in order "to stabilize the system and prevent successive administrative decisions to decrease the size of the [administrative wilderness] system." McCloskey, Zahniser, and others also feared that the USFS would be influenced by "pressure from commodity interests." McCloskey, *supra* note 134, at 297. In an influential 1953 dissertation, James P. Gilligan called for statutory protection of wilderness, reasoning that the "Forest Service wilderness reservation policy in western states may have been sincerely inaugurated to meet preservation sentiment which began developing over one hundred years ago. . . . However, the application of the policy in many cases developed into political maneuvers to thwart the Department of the Interior and the National Park Service. . . . The policy was not the result of a "grass roots" movement. . . . It was never intended to reserve specified areas permanently from development." James P. Gilligan, The Development of Policy and Administration of Forest Service Primitive and Wilderness Areas in the Western United States 221–22 (1953) (unpublished Ph.D. dissertation, University of Michigan), *quoted in* David Gerard, *The Origins of the Federal Wilderness System*, *in* POLITICAL ENVIRONMENTALISM: GOING BEHIND THE GREEN CURTAIN, 211 (Terry L. Anderson ed., 2000).

136 Gilligan, *supra* note 137, at 222.

137 *See* McCloskey, *supra* note 134, at 298, 305–06.

preservation values on the other. However, this misses a crucial point. Agency management decisions are often challenged not just as being too strict or too lax in the agencies' protection of wilderness as against detrimental uses of the area's natural resources, but as protecting one set of supposed "wilderness values" or uses at the expense of others. Appel is right in showing that courts have indeed asserted a strong role in protecting wilderness values in defined wilderness areas.[138] The question still remains, however, what the "wilderness" required to be protected even is. To answer that question, we must turn to the Wilderness Act, its substantive definitions, and its substantive requirements for managing agencies, the subject of the following Part.

IV. THE WILDERNESS ACT'S SUBSTANTIVE REQUIREMENTS AND PROHIBITIONS

Congress defined the Wilderness Act's purpose as "assur[ing] that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition," and "secur[ing] for the American people of present and future generations the benefits of an enduring resource of wilderness."[139] Many have interpreted this grandiose statement of purpose not as establishing a unified mission for wilderness areas, but rather as suggesting a management dilemma for land managers between managing for preservation and managing for human use and enjoyment.[140] Indeed, this tension seemingly manifests itself all throughout the Act. For instance, the Act requires that wilderness areas be "administered for the use and enjoyment of the American people," while also being left "unimpaired for future use and enjoyment as wilderness."[141] Further, the Act defines wilderness areas in part as areas of federal land "protected and managed so as to preserve [their] natural conditions," while also having "outstanding opportunities for solitude or a primitive and unconfined type of

138 *See Wilderness and the Courts*, *supra* note 104, at 110–11 (explaining that courts apply a stricter review for wilderness decisions).

139 Wilderness Act, 16 U.S.C. § 1131(a) (2006).

140 *See, e.g.*, McCloskey, *supra* note 134, at 309–10. Some scholars have emphasized the first purpose—to ensure that some lands remain in an undeveloped condition—in an effort to use the Act as a tool for protecting the integrity of ecosystems and promoting biodiversity. In their influential 1988 article on wilderness management, for instance, Dan Rohlf and Doug Honnold contended that the stated purpose of protecting some lands in their natural condition "suggests that the lawmakers . . . believed that natural communities have an inherent right to exist." Daniel Rohlf & Douglas L. Honnold, *Managing the Balances of Nature: The Legal Framework of Wilderness Management*, 15 ECOLOGY L.Q. 249, 255–56 (1988). However, while it is certainly plausible that a concern for the intrinsic value of nature informed some of the decisions which led to the legislation's enactment, the Act itself shows that the primary impetus for preserving wilderness was its value for recreational, scientific, and other human endeavors. Human "use and enjoyment" is the singular rationale for wilderness protection in the Wilderness Act, and preservation of the area's naturalness is the precondition.

141 16 U.S.C. § 1131(a) (2006).

recreation."[142] Finally, it makes each managing agency "responsible for preserving the wilderness character of the area," while also requiring that such areas also "be devoted to the public purposes of recreational, scenic, educational, conservation and historical use."[143] A paradox seems to be presented in that the recreation opportunities afforded by protected wilderness attract human visitors whose very presence threatens the area's naturalness. Human impacts such as campsites, trails, and garbage must have been what led historian Roderick Nash to lament in 1982 that we are "loving our wilderness to death."[144]

This paradox did not originate with the Wilderness Act, but rather has roots going back to the very beginnings of the preservationist movement in the late nineteenth century. Since that time, the predominant justification for preservation has tended to emphasize the value of wilderness as a source of unique recreation opportunities, whether as places where American men could test, validate, exhibit, and fortify the masculine qualities of "hardihood, self-reliance, and resolution,"[145] or merely as places where Americans could escape from the problems of everyday life and the "tyranny of wires, bells, schedules and pressing responsibility."[146] Although rooted in the value of wilderness as an experience, this perspective emphasized far more than merely providing a forum for enjoyable activities; it also stressed the importance of perpetuating what was thought to be a crucial component of America's development: the frontier experience. Wilderness advocate Wallace Stegner encapsulated this view when he emphatically insisted that wilderness must be preserved because "it was the challenge against which our character as a people was formed."[147] Just as the frontier was thought to have instilled in Americans the virtues of self reliance, moral fortitude, and resolute determination, and just as it had served as a necessary vent for those disillusioned or disadvantaged by the emerging world of industrial

142 *Id.* § 1131(c).

143 *Id.* § 1133(b).

144 Mark Woods, *Federal Wilderness Preservation in the United States: The Preservation of Wilderness?*, *in* THE GREAT NEW WILDERNESS DEBATE 131, 146 (J. Baird Callicott & Michael P. Nelson eds., 1998*)* (citing RODERICK NASH, WILDERNESS & THE AMERICAN MIND 317–19 (2d ed. 1982)).

145 *See* Theodore Roosevelt, *The American Wilderness: Wilderness Hunters and Wilderness Game*, *in* THE GREAT NEW WILDERNESS DEBATE 63, 74 (J. Baird Callicott & Michael P. Nelson eds., 1998); *see also* Aldo Leopold, *Wilderness as a Form of Land Use*, 1 J. LAND & PUB. UTIL. ECON. 398 (1925), *reprinted in* THE RIVER OF THE MOTHER OF GOD: AND OTHER ESSAYS BY ALDO LEOPOLD 134, 137–138 (Susan L. Flader and J. Baird Callicott eds., 1991).

146 Sigurd Olson, *Why Wilderness?*, 44 AM. FORESTS 395, 397 (1938); *see also* JOHN MUIR, OUR NATIONAL PARKS 1–2 (1901) ("Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, [thousands of tired, nerve-shaken, over-civilized people] are trying as best they can to mix and enrich their own little ongoings with those of Nature" by "wander[ing] in wilderness.").

147 Letter from Wallace Stegner to David E. Pesonen (Dec. 3, 1960), *quoted in* Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 1. Stegner also cited to the other experiential values of wilderness, namely its importance for "our spiritual health" due to the "incomparable sanity it can bring briefly, as vacation and rest, into our insane lives." *Id.*

capitalism, protected wilderness areas would now have to suffice as a symbolic substitute.[148]

Still, the Wilderness Act provides guidance to managers in resolving this apparent paradox. Even if the primary goals of wilderness protection were entirely anthropocentric—that wilderness be used and enjoyed—those goals require there to be, in fact, a *wilderness* to use and enjoy. Wilderness must first be preserved. Thus, the Act must be read as directing agencies to allow for recreational and other uses to the extent consistent with wilderness preservation, while also requiring agencies to curtail or even prohibit human activities which impair the "wilderness character" of the protected areas.[149] When use conflicts with the preservation of this "wilderness character," preservation trumps use. Of course, this only begs the question of what "wilderness character" even is.

A. Proposing an Internally Consistent Definition of "Wilderness Character"

The Wilderness Act provides a legal definition of "wilderness" as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain," as opposed to those areas "where man and his own works dominate the landscape."[150] This definition identifies the central characteristic of "wilderness," namely that it be "untrammeled." At the same time, it indicates something which "wilderness" does not require: a complete exclusion of humans. It explicitly allows for humans to be "visitors" within areas of wilderness without impacting their wilderness character. This is important to note in drawing the lines between "untrammeled" and "trammeled" and, in turn, between "wilderness" and "non-wilderness."

Congress followed that definition with a second one which delineated more specific and concrete criteria for agencies to determine which areas should be included in the National Wilderness Preservation System. It provided that a wilderness area is:

148 These arguments can be seen as a secularization of the more spiritually centered arguments of the Transcendentalists of the mid-nineteenth century, which emphasized the value of Nature as a place to experience Eden and the presence of God. John A. Muir, who many consider the founder of the American preservationist movement, valued wilderness for both its spiritual and social values. *See, e.g.*, MUIR, *supra* note 146; JOHN MUIR, MY FIRST SUMMER IN THE SIERRA 153 (Houghton Mifflin Co. ed., 1979) (1911) (describing the wilderness of the Sierra as containing "window opening[s] into heaven" and "mirror[s] reflecting the creator"); JOHN MUIR, THE YOSEMITE 261–62 (1912) (comparing the damming of Hetch Hetchy to the destruction of a temple and calling, sarcastically, for the building of dams to continue with the damming of "the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man").

149 This view is in accord with the USFS's official interpretation of the Wilderness Act's requirements. USFS regulations provide that "[w]ilderness will be made available for human use to the optimum extent consistent with the maintenance of primitive conditions," and that "[i]n resolving conflicts in resource use, wilderness values will be dominant." 36 C.F.R. § 293.2(b)–(c) (2011).

150 Wilderness Act, 16 U.S.C. § 1131(c) (2006).

> [A]n area of undeveloped Federal land retaining its *primeval character and influence*, without permanent improvements or human habitation, which is protected and managed so as to preserve its *natural conditions* and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.[151]

This list of wilderness criteria used for NWPS designation provides further insights into what Congress intended to be preserved. Taking these definitions together, scholars generally concur that "wilderness character" includes notions of both "untrammeled"-ness (or wildness) and "natural conditions" (or pristineness).[152]

Much debate has ensued over the relationship between these two definitions of wilderness. In the influential treatise *Wilderness Management*,[153] John C. Hendee and Chad P. Dawson contended that the Wilderness Act's definition of wilderness as being "untrammeled by man" represented the ideal of wilderness rather than a management requirement.[154] According to Hendee and Dawson, Congress's second (and more concrete) definition, rather than clarifying or supplementing the first, was meant in fact to qualify the first one—it was meant to be a "working definition based on reality," while the first definition merely represented an ideal that Congress recognized would be far too restrictive if actually required by the Act.[155] Under this model, while managers should strive to

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151 *Id.* (emphasis added); *see also Wilderness and the Courts*, *supra* note 104, at 76–78, for additional discussion of the legislative language.

152 *See, e.g.*, Sandra Zellmer, *Wilderness, Water, and Climate Change*, 42 ENVTL. L. 313, 322–25 (2012); Gordon Steinhoff, *Interpreting the Wilderness Act of 1964*, 17 MO. ENVTL. L. & POL'Y REV. 494, 497–98 (2010); Peter Landres, *Developing Indicators to Monitor the "Outstanding Opportunities" Quality of Wilderness Character*, INT'L J. WILDERNESS, Dec. 2004, at 8, 9. It should be noted that these two features are sometimes referred to in other terms. Greg Aplet, for instance, saw wildness as the umbrella term, which incorporated notions of freedom (or untrammeled-ness) and naturalness, while David Cole saw naturalness as the umbrella term, with it being comprised of untrammeled-ness and pristineness. *See* Gregory H. Aplet, *On the Nature of Wildness: Exploring What Wilderness Really Protects*, 76 DENV. U. L. REV. 347, 353 (1999); David N. Cole et al., *Naturalness and Beyond: Protected Area Stewardship in an Era of Global Environmental Change*, 25 GEO. WRIGHT F., no. 1, 2008, at 36, 42, 47. I prefer using "untrammeled-ness" and naturalness, since those are the terms used throughout the Wilderness Act, though for reasons of style I occasionally use "wildness" to mean "untrammeled-ness" and "pristineness" or "naturalness" instead of "natural conditions." Regardless of the terminology, the analysis is the same. Though each of these characteristics will be considered in turn, it is important to remember that these characteristics, as historical and social constructs, are deeply interconnected.

153 JOHN C. HENDEE & CHAD P. DAWSON, WILDERNESS MANAGEMENT: STEWARDSHIP AND PROTECTION OF RESOURCES AND VALUES (3d ed. 2002).

154 *See id.* at 110.

155 *Id.; accord Wilderness and the Courts*, *supra* note 104, at 74, 77 (stating that the "actual statutory definition of wilderness" contains both "congressional definitions" and "aspirations," and identifying the "untrammeled" characteristic as an "ideal of wilderness"); Stephenson &

preserve actual natural conditions and to prevent human control and manipulation of natural processes, they are not actually required to do so.

The legislative history offers some support for this position. For instance, in the final Senate hearing in 1963, the Wilderness Act's principal architect, Howard Zahniser, testified that the first definition's function was to make "plain the character of lands with which the bill deals, *the ideal*," while the second definition was intended to describe "the areas to which this definition applies."[156] According to Zahniser, "The first sentence defines the character of wilderness, [and] the second describes the characteristics of an area of wilderness."[157] Similarly, Senator Clinton P. Anderson, a lead sponsor of the bill and chairperson of the Senate Committee on Interior and Insular Affairs, explained that the Act contains two distinct definitions: the first is a definition of "pure wilderness areas" which "states the ideal," while the second "defines the meaning or nature of an area of wilderness as used in the proposed act."[158] This explanation was repeated two years later by John P. Saylor, another sponsor of the wilderness bill, as he introduced what would become its final version in November of 1963: "The first states the nature of wilderness in an ideal concept," while "[t]he second sentence describes an area of wilderness as it is to be considered for the purposes of the act—areas where man's works are substantially unnoticeable."[159]

However, these characterizations of the first definition as an "ideal" refer to the question of wilderness designation, rather than to the "wilderness character" to be preserved once an area is designated. Zahniser's statement, for instance, was made in the context of advocating for a third definitional sentence, one which would clarify that the definition of "wilderness" includes areas designated as wilderness.[160] He was concerned that some areas "worthy of preservation as wilderness" might be excluded from the system based on their having, "at the outset of such handling," some "inconsistent features."[161] In other words, when Zahniser referred to the first definition as representing the *ideal*, he meant that it would be

Millar, *supra* note 6, at 2 (identifying Zahniser's first definition of wilderness as being "untrammeled" as stating "the idealized concept of wilderness"); *c.f.* Douglas W. Scott, *"Untrammeled," "Wilderness Character," and the Challenges of Wilderness Preservation*, WILD EARTH, Fall/Winter 2001–2002, at 72, 75–76 (contending that "Congress (and Zahniser) intended each sentence to have a distinct definitional purpose—the first states the *ideal* while the second is the more *practical* characterization"). Scott rightly distinguishes between past and future conditions. The first definition represented an "ideal" as far as past conditions, but it still defined the "essence" of the wilderness character which land managers were bound to protect in the future.

156 *National Wilderness Preservation Act: Hearings on S. 4 Before the S. Comm. on Interior & Insular Affairs*, 88th Cong. 68 (1963) (statement of Howard Zahniser, Exec. Dir., Wilderness Society) (emphasis added).

157 *Id.*

158 *The Wilderness Act: Hearings on S. 174 Before the S. Comm. on Interior & Insular Affairs*, 87th Cong. 2 (1961) (statement of Sen. Clinton P. Anderson, Chairman, S. Comm. on Interior & Insular Affairs).

159 109 CONG. REC. 21,431 (1963).

160 *See National Wilderness Preservation Act Hearings*, *supra* note 156.

161 *Id.*

impractical and unwise to require that lands be completely untrammeled prior to being designated, but he fully expected wilderness areas, once designated, to be untrammeled into the future. The first definition represented an ideal as far as past conditions, but it still delineated the essence of the wilderness character which land managers were bound to protect into the future.[162]

Even though the term "untrammeled" is unquestionably central to the "wilderness character" intended to be preserved and protected, the Wilderness Act itself offers no definition of the term. We thus must presume the term to have its "ordinary or natural meaning,"[163] which is to be free of restraint, unhindered, unimpeded, unencumbered, or unrestricted.[164] Such a definition, with its emphasis on freedom, makes great intuitive sense, as it essentially makes "untrammeled" a legislative proxy for the term "wild"—the root of "wilderness"—commonly (and similarly) conceived of as meaning free, untamed, undomesticated, uncultivated, unrestrained, or unregulated.[165] It also parallels how the legislation's chief author, Howard Zahniser, defined "untrammeled," as it was used in the Act. He defined it as being not subject to "human controls and manipulations that hamper the *free* play of natural forces."[166]

Not all have accepted this definition of "untrammeled," however. In the years following the Wilderness Act's passage, USFS, for instance, took what many consider to be a "purist" view of wilderness and the "untrammeled" requirement in order to support the exclusion of areas from consideration for the NWPS.[167] In his 1968 testimony before Congress, the USFS's chief, Edward P. Cliff contended that a particular area was already trammeled, and hence unfit for wilderness protection, based in large part on it being

162 *See* Scott, *supra* note 155, at 78. That Zahniser intended the first definition to apply to the future management of wilderness areas can be seen in his explanation for why he chose the term "untrammeled" over the term "undisturbed": "the problem with the word 'Disturbed' (that is, 'Undisturbed') is that most of these areas can be considered as disturbed by the human usages for which many of them are being preserved." Letter from Howard Zahniser, Exec. Dir., Wilderness Soc'y, to C. Edwards Graves (Apr. 25, 1959), *quoted in* Scott, *supra* note 155, at 75. Courts have generally agreed that wilderness managers are required to preserve wilderness areas as "untrammeled." *See, e.g.*, Parker v. United States, 448 F.2d 793, 795 (10th Cir. 1971) ("We have no difficulty in recognizing the general purpose of the Wilderness Act. It is simply a congressional acknowledgment of the necessity of preserving one factor of our natural environment from the progressive, destructive and hasty inroads of man . . . . A concerned Congress, reflecting the wishes of a concerned public, did by statutory definition choose terminology that would seem to indicate its ultimate mandate.").

163 Smith v. United States, 508 U.S. 223, 228 (1993).

164 WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY, UNABRIDGED 2513 (1971) (defining trammel as "to prevent or impede the free play or exercise of," and defining untrammeled as "not confined or limited: not hindered," or "being free and easy"); Wordsmyth, *Trammel*, http://www.wordsmyth.net/?level=3&ent=trammel (last visited Feb. 17, 2013) (defining trammel as "a restraint or impediment to free movement").

165 WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 1349 (1983).

166 Letter from Howard Zahniser to C. Edwards Graves, *supra* note 162 (emphasis added).

167 Scott, *supra* note 155, at 74–75. It did so in order to restrict the amount of land eligible to be included in the NWPS. *See id.*

extensively used by hikers and campers.[168] In so doing, Cliff appeared to confuse "untrammeled" with "untrampled," a common mistake.[169] Determining whether an area is trampled and whether it is trammeled are two distinct inquiries, in that a ground can be trampled without the area's community of life being subject to human manipulations and without natural forces being hindered.[170] More recently, one prominent wilderness scholar, David Cole, advocated another view of the untrammeled requirement by defining "untrammeled" as being entirely free from deliberate human control and manipulations.[171] As environmental philosopher Gordon Steinhoff recently pointed out, however, this definition—though not as "purist" as USFS's initial definition—is also too strong in that it "does not allow *any* deliberate control or manipulation of untrammeled wilderness, even that which does not hinder natural processes."[172] To be "trammeled," there must both be deliberate control or manipulation by humans, *and* this control or manipulation must be of the character and scope to hinder natural ecological processes.[173]

Still, most who have analyzed the meaning of "untrammeled" agree with Zahniser's definition. Unfortunately, while courts have often acknowledged the importance of "untrammeled" to wilderness character, they rarely

168 *Hearings on S. 2751 Before the S. Subcomm. on Public Lands, Committee on Interior & Insular Affairs*, 90th Cong. 11–12, 17, 23–24 (1968) (statement of Edward P. Cliff, Chief, U.S. Forest Serv.) (citing Marion Lake's "significant recreation and scenic importance" as cause for continued Forest Service management under a scenic area concept rather than designating it as a wilderness area).

169 Scott, *supra* note 155, at 74; *see also*, Katherine Daniels Ryan, Note, *Preservation Prevails over Commercial Interests in the Wilderness Act:* Wilderness Society v. United States Fish & Wildlife Service, 32 ECOLOGY L.Q. 539, 546–47 (2005) (arguing that the definition of wilderness "emphasizes that human influence is to be kept to a minimum").

170 As Douglas W. Scott pointed out, a "trammeling" occurs only when an area's ecological processes are subjected to the deliberate control and manipulation of humans; the focus of inquiry for whether a "trammeling" has occurred is not the ground itself, but the area's community of life. *See* Scott, *supra* note 155, at 78.

171 David N. Cole, *Management Dilemmas that Will Shape Wilderness in the 21st Century*, J. FORESTRY, Jan. 2001, at 4, 6.

172 Steinhoff, *supra* note 152, at 499.

173 *Id.* at 498–99. For its part, USFS now defines an untrammeled area as one where "human influence does not impede the free play of natural forces or interfere with natural processes in the ecosystem." U.S. FOREST SERV., FOREST SERVICE MANUAL § 2320.5(2) (2006), *available at* http://www.fs.fed.us/im/directives/fsm/2300/2320.doc (approved December 26, 2006, but effective January 22, 2007). Just as Cole's definition suffered from its omission of the second component of "untrammeled," however, the USFS's definition is flawed in that it ignores the first. Under the USFS's definition, any human influence which hinders natural processes is a "trammeling," even if that influence is through human actions not constituting deliberated efforts at controlling or manipulating those natural forces. The Bureau of Land Management, in the context of conducting wilderness inventories of lands not already designated as wilderness areas or Wilderness Study Areas pending before Congress, defines "untrammeled" as "unhindered and free from modern human control or manipulation." U.S. BUREAU OF LAND MGMT., WILDERNESS 6301 – CHARACTERISTICS INVENTORY (PUBLIC), at § 6301.2 (2011), *available at* http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.34706.File.dat/MS-6301.pdf. This is similar to Cole's definition, but with the addition of the word "modern," apparently allowing unfettered manipulations of humans not considered "modern."

engage in any meaningful analysis of the term.[174] The Wilderness Act includes in its conception of "wilderness character" a notion that lands retain their "natural conditions." Though not included in the general definition of wilderness, the term "natural conditions" was included in two other provisions of the Act—its statement of purpose and its criteria for designating wilderness areas. In the first provision, Congress stated its purpose as assuring that "an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas . . . , leaving no lands designated for preservation and protection in their *natural condition*."[175] In the second provision, the Act defines an area of wilderness as "an area of undeveloped Federal land retaining its *primeval character and influence*, without permanent improvements or human habitation, which is protected and managed so as to preserve its *natural conditions*."[176] These provisions suggest that "natural conditions" are a crucial part of the "wilderness character" to be protected.

In determining what "natural conditions" means as used in the Wilderness Act, we must look not to the evolving scientific understandings of natural ecology, but rather—as was the case with "untrammeled"—to "the language employed by Congress" and to "the ordinary meaning of the words used."[177] In general, "natural" means wild, formed by nature, and not artificially made or cultivated.[178] Unfortunately, while the plain meaning of "untrammeled" offers much guidance to land managers in preserving wildness, the plain meaning of "natural" raises as many questions as it answers. In particular, it fails to indicate the line between something "form[ing] by nature" and something being "artificially made"—the line between humans acting *within* nature and acting outside of or *upon* nature. This line is crucial to identifying which activities are allowed and which are forbidden. To determine the statutory meaning of "natural conditions," therefore, we must look beyond that term's plain and ordinary meaning and consult additional rules of statutory construction.

Many, however, do not see any questions being raised in the plain meaning of "natural" given their seemingly hard-line rule that all human actions are outside of nature, and that nature is the state of things absent human influence.[179] Given the pervasiveness of human-induced changes to the environment occurring on a global scale, this conception has led some to argue that deliberate human manipulations are required to restore certain wilderness areas to the hypothetical conditions which would exist if they

174 *See supra* note 97–103 and accompanying text (describing judicial deference to Congress and agency interpretation of statutory language).

175 Wilderness Act, 16 U.S.C. § 1131(a) (2006) (emphasis added).

176 *See* Appel, *supra* note 104, at 98 n.137.

177 Immigration & Naturalization Serv. v. Phinpathya, 464 U.S. 183, 189 (1984).

178 *See* BLACK'S LAW DICTIONARY 1026 (6th ed. 1990); *see also* WEBSTER'S NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE (1960) (defining "natural" as 1) ("Of, from, or by, birth; natural-born;" 5) "In accordance with, or determined by, nature;" and 9) "Not artificial")); MERRIAM-WEBSTER, *Natural*, http://www.merriam-webster.com/dictionary/natural (last visited Oct. 30, 2012).

179 *See* Rohlf & Honnold, *supra* note 140, at 254–55.

had been left completely free of human influences.[180] They contend that we are obligated to intervene in order to compensate for these human influences, so that we may preserve (as much as possible) or restore the natural conditions of such areas.[181]

Those who have advocated for a definition of "nature" as being entirely free from human influence, however, have in practice excluded from "naturalness" only a certain subset of human activities performed by so-called "modern" people, often citing to the "primeval character and influence" language for support. For instance, in one of the first scholarly articles substantively analyzing "wilderness" as a legal category, Daniel Rohlf and Douglas L. Honnold contended that one key ingredient of "wilderness" is that it "possess[es] an ecology that functions as it did for thousands of years prior to the arrival of *nonaboriginal* humans."[182] More recently, David N. Cole, a research biologist for USFS's Aldo Leopold Wilderness Research Institute, summarized what he saw as the most common definition of "naturalness" as being those "conditions that are similar to what would have existed in the absence of *post-aboriginal* humans."[183] This explains why a 1983 historical work by William Cronon demonstrating that New England Indian peoples not only inhabited, but in fact exploited and transformed their lands prior to European settlement,

180 *See id.* at 271–73.

181 *See id.*

182 *Id.* at 255 (emphasis added).

183 David N. Cole, *Ecological Manipulation in Wilderness—An Emerging Management Dilemma*, INT'L. J. WILDERNESS, May 1996, at 15, 15 (emphasis added). In a later article, Cole stated that "[n]atural is usually taken to mean that the influence of *post-Columbian peoples* should be generally absent." David N. Cole, *Soul of the Wilderness: Natural, Wild, Uncrowded, or Free?*, INT'L. J. WILDERNESS, August 2000, at 5, 5 (emphasis added); *accord* Gregory H. Aplet & David N. Cole, *The Trouble with Naturalness: Rethinking Park and Wilderness Goals*, *in* BEYOND NATURALNESS: RETHINKING PARK AND WILDERNESS STEWARDSHIP IN AN ERA OF RAPID CHANGE 12, 13 (David N. Cole & Laurie Yung eds., 2010) ("For many people, naturalness implies a lack of human effect. Natural areas should be pristine, uninfluenced by humans, or at least modern technological humans. This means ensuring that the current composition, structure, and functioning of ecosystems are consistent with the conditions that would have prevailed in the absence of humans (either all humans or post-aboriginal ones)."). Further, managers normally conceive of "naturalness" as a particular ordering of conditions, relationships, and/or processes, such that only those human influences which move an ecosystem further away from this "natural order" can be said to constitute unnatural intrusions. For instance, in 2000, one group of prominent wilderness managers, including Peter Landres, pointed to the dilemma in managing wilderness both for naturalness and wildness as arising from the awareness that the naturalness of virtually all areas (including protected wilderness areas) has been "compromised by . . . human actions," such that "some form of manipulation . . . is proposed to restore this naturalness." Peter B. Landres et al., *Naturalness and Wildness: The Dilemma and Irony of Managing Wilderness*, *in* 5 WILDERNESS SCIENCE IN A TIME OF CHANGE CONFERENCE (May 23–27, 1999), USFS RMRS-P-15-VOL-5, at 377–78 (David N. Cole et al. comps., 2000), *available at* http://www.fs.fed.us/rm/pubs/rmrs_p015_5/rmrs_p015_5_377_back.pdf; *see also* Aplet, *supra* note 152, at 365. Their conception of "naturalness," therefore, excludes those human actions which impair (or "compromise") naturalness, but not those human influences—including the actions of managers to intervene into ecological relationships—which are deemed supportive, beneficial, or restorative.

caused such a panic among the wilderness community, even leading to what has been hailed as "The Great New Wilderness Debate."[184]

The above interpretations of "natural conditions" require the perpetuation of false stereotypes of Indians as living in balance with nature—if not living entirely within nature—rather than being able to act *upon* it, the essence of "human-ness" in the nature-human duality.[185] If the Wilderness Act, including its "primeval character and influence" provision,[186] is interpreted as requiring restoration of wilderness areas to some past set of conditions—rather than merely being free from certain human influences in the present and future—then the historical target cannot be 1803 or 1492, or any other date signifying the arrival of Euro-Americans. Rather, because humans have manipulated and controlled this continent since they truly discovered it, the target conditions must be those at a point in time before the arrival of humans. This would be an impossible management directive.[187]

Beyond the internal problems with interpretations of "natural conditions" as meaning the absence of human influence, however, such interpretations also violate a fundamental rule of statutory construction, namely that words should be interpreted in light of the entire statute and so that "no clause, sentence, or word [is rendered] superfluous, void, or insignificant."[188] The

184 *See generally* WILLIAM CRONON, CHANGES IN THE LAND: INDIANS, COLONISTS, AND THE ECOLOGY OF NEW ENGLAND (1983); J. Baird Callicott & Michael P. Nelson, *Introduction*, *in* THE GREAT NEW WILDERNESS DEBATE, *supra* note 144, at 11–12 (crediting—i.e., blaming—Cronon's work for sparking the whole debate in the first place).

185 From the colonial era through the mid-nineteenth century, white Americans typically conceived of wilderness not only as being consistent with Indian presence, but as being essentially defined by it. In short, as Mark David Spence summarized this point of view in his influential work, *Dispossessing the Wilderness*, "forests were wild because Indians and beasts lived there, and Indians were wild because they lived in the forests." MARK DAVID SPENCE, DISPOSSESSING THE WILDERNESS: INDIAN REMOVAL AND THE MAKING OF THE NATIONAL PARKS 10 (1999). While most white Americans through the mid-nineteenth century viewed "wilderness" as a negative to be eradicated, some lamented the destruction of "natural" landscapes as well as the peoples seen as living within such a "nature." *See* RODERICK FRAZIER NASH, WILDERNESS AND THE AMERICAN MIND 96–107 (4th ed. 2001). This perspective was perhaps best represented by the writings and artwork of George Catlin, who in 1832 advocated government protection of large portions of the Great Plains in its "pristine beauty and wildness," a wilderness that would feature, "for ages to come, the native Indian in his classic attire, galloping his wild horse with sinewy bow, and shield and lance, amid the fleeting herds of elks and buffaloes." Letter No. XXXI, Mouth of Teton River, Upper Missouri, *in* GEORGE CATLIN, 1 LETTERS AND NOTES ON THE MANNERS, CUSTOMS, AND CONDITIONS OF THE AMERICAN INDIANS 376, 397 (1857). The idea of an "Indian wilderness" appeared to give way to the notion of a historically uninhabited wilderness by the turn of the century, primarily as a justification to remove Indians from national parks. *See* SPENCE, *supra*, at 56–60 (discussing displacement and removal of Indians from National Parks). But clearly the idea of an "Indian wilderness" persists to today.

186 Wilderness Act, 16 U.S.C. § 1131(c) (2006).

187 At least one group, led by field ecologist Josh Donlan, has advocated that this should indeed be a goal of land managers in their restorative efforts. *See* EMMA MARRIS, RAMBUNCTIOUS GARDEN: SAVING NATURE IN A POST-WILD WORLD 61–65 (2011).

188 TRW Inc. v. Andrews, 534 U.S. 19, 31 (2001) (citation omitted); *accord* Deal v. United States, 508 U.S. 129, 132 (1993) (holding it to be a "fundamental principle of statutory construction (and, indeed, of language itself) that the meaning of a word cannot be determined in isolation, but must be drawn from the context in which it is used"); Smith v. United States, 508 U.S. 223, 229 (1993) (explaining that the "meaning of a word that appears ambiguous if

above conception of "natural conditions" violates this rule in several ways. First, it subsumes (and thereby renders insignificant, if not superfluous) the primacy of "untrammeled" in the definition of wilderness. In this clause, use of the word "untrammeled" means that only those human influences resulting from deliberate manipulations of nature are prohibited, not all human influences. If the statute is then interpreted as also requiring the elimination of *all* human influences, that would render the conscious use of "untrammeled" rather than "unimpacted" or "unimpaired" in the definition of wilderness meaningless. Moreover, such a reading contradicts other provisions of the statute which explicitly allow human influences, including those which manifest one of the statute's underlying rationales behind preserving these areas in the first place, namely human use and enjoyment.[189] Finally, to the extent that the directive to preserve "natural conditions" is interpreted to allow, if not require, interventions into a wilderness area's natural processes, this outright contradicts the "untrammeled" requirement, as managers and scholars have recognized.[190] Such interventions are by their nature exercises in human manipulation and control that deprive an area's "community of life" of its freedom and wildness.

Terms in a statute should not be interpreted so as to create contradictions with other terms—although this does make for interesting scholarly debate—whenever it is possible to avoid them using another reasonable interpretation based on a plain reading.[191] Instead of assuming any of the above conceptions of "natural conditions," we must analyze the term as supplementing—rather than contravening—the requirement that lands retain their wildness. This can easily be done. The term was used in the statement of purpose as a contrast to those conditions arising from lands being occupied and modified by humans. It was used in the definition of wilderness areas as a contrast to the state of being "developed" by humans, such as through the construction (or imposition) of "permanent improvements" or settlements. In neither case was the mandate to preserve "natural conditions" meant to exclude all human influences from wilderness areas. As courts have acknowledged, "Congress did not mandate that the [agencies] preserve the wilderness in a museum diorama, one that we might observe only from a safe distance, behind a brass railing and a thick glass

viewed in isolation may become clear when the word is analyzed in light of the terms that surround it"); Textron Lycoming Reciprocating Engine Div., AVCO Corp. v. United Auto., Aerospace and Agric. Implement Workers of Am., 523 U.S. 653, 657 (1998) (quoting *Deal*, 508 U.S. at 132).

189 16 U.S.C. § 1133(b) (2006) ("Except as otherwise provided . . . wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.").

190 *See generally* Sandra Zellmer, *A Preservation Paradox: Political Prestidigitation and an Enduring Resource of Wildness*, 34 ENVTL L. 1015, 1041–42 (2004); Aplet, *supra* note 152, at 355; Cole, *Ecological Manipulation in Wilderness*, *supra* note 183, at 15–18.

191 Fed. Power Comm'n v. Panhandle E. Pipe Line Co., 337 U.S. 498, 514 (1949) ("If possible all sections of [an act] must be reconciled so as to produce a symmetrical whole.").

window."[192] Considering the naturalness and wildness requirements together, managing agencies must seek to keep areas untrammeled, both by visitors and by themselves (through the exercise of self-restraint), and they must also restrict or prohibit certain other uses which might not constitute "trammeling" but do impair "natural conditions" as defined, such as the construction of roads or structures, the establishment of commercial enterprises, or the use of motorized transportation. This is the mandate, and it is singular and without contradictions.

Whatever can be said regarding the continued merits of preserving the wildness or natural autonomy of protected areas at the expense of certain environmental values (such as biodiversity, ecological integrity, or resilience) which may be threatened by pervasive human influence—this is precisely what the Act requires. As Peter Landres and others wrote in 2000, the Act codified a strict nature-culture duality, one that strictly prohibits injections of culture into nature, such as those embodied in so-called "ecological interventions" undertaken for the purpose of "redress[ing] some of the 'sins' of culture" and "mak[ing] things right in our relationship with nature."[193] This is why Gordon Steinhoff recently concluded that "[t]he Wilderness Act does not present managers with conflicting requirements," and that "[t]he dilemma [managers find] within the Act—to either maintain wildness or restore naturalness—arises only because 'natural conditions' has been misinterpreted."[194]

B. Management of Wilderness

To ensure that an area, once designated, retains its wilderness character, Congress defined its basic management mandate, in section 4(b) of the Wilderness Act, as being to "preserv[e] the wilderness character of the area."[195] This section also provided that each wilderness area be managed for "such other purposes for which it may have been established" and that all wilderness areas also be "devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use."[196] These additional obligations, however, are made contingent upon the agency also preserving the wilderness character of the area. As to the "other purposes" for which an area has been established, Congress reiterated that managers

192 *Wilderness Watch*, 629 F.3d 1024, 1033 (9th Cir. 2010), *cited in* Wilderness Watch, Inc. v. U.S. Bureau of Land Mgmt., 799 F. Supp. 2d 1172, 1177 (D. Nev. 2011); *Californians for Alternatives to Toxics*, 814 F. Supp. 2d 992, 1017 (E.D. Cal. 2011). This quote has been used in support of active management practices, including ecological interventions. Yet Congress's allowance of some human influences does not mean that it also intended to permit managing agencies to intervene into the ecological relationships within wilderness areas, thereby "trammeling" the community of life and sacrificing wildness for the sake of promoting a particular view of what is "natural."

193 Landres et al., *supra* note 183, at 379–80.

194 Steinhoff, *supra* note 152, at 521.

195 Wilderness Act 16 U.S.C. § 1133(b) (2006).

196 *Id.*

must do so while also "preserv[ing] its wilderness character."[197] As to the other "public purposes," the Act directed managers to take actions in furtherance of these purposes "except as otherwise provided in this Act."[198] This includes the requirement—twice stated in the Act's preceding sentence—that wilderness character be preserved. In short, managers should allow for and even promote these public uses of wilderness, but they cannot allow such uses to detract from the wilderness resource itself. Preservation of wilderness is the paramount obligation.

In addition to the affirmative obligations in section 4(b), Congress also specified in section 4(c) a number of uses and activities that were prohibited. Most notably, the Wilderness Act generally bans commercial enterprises, motorized access, roads, structures, and installations in wilderness areas.[199] While the Wilderness Act restricts management activities (as well as those of users) far more than any other federal law, these prohibitions are subject to several exceptions.[200] Two exceptions are especially important in the context of ecological restoration efforts. The first allows temporary roads, motorized vehicles, equipment, or boats, aircraft, mechanical transport, or human installations where "necessary to meet minimum requirements for the administration of the area for the purpose of [the Wilderness Act]."[201] It is often referred to as the "minimum requirements" exception. The second exception allows land managers to take any measures (even generally non-conforming ones) that are "necessary" for the control of fire, insects, and disease.[202] This provision was most assuredly a compromise to alleviate fears among the USFS and timber industry representatives that wilderness areas, if left unmanaged as to fire, insects, or disease, would pose a threat to the surrounding lands and their resources.[203]

197 *Id.*

198 *Id.*

199 *Id.* § 1133(c).

200 For one, all were made subject to preexisting grazing or mining rights. *Id.* § 1133(d)(3)–(4). In an obvious compromise with the mining industry, the ability to obtain new rights under the U.S. mining laws and laws regarding mineral leasing was not terminated immediately as applied to designated wilderness areas, but rather was extended to the end of 1983. *See id.* § 1133(d)(3). Additionally, commercial services may be authorized if "necessary . . . for realizing the recreational or other wilderness purposes of the areas." *Id.* § 1133(d)(6). The use of aircraft or motorboats may be allowed where such uses "have already become established," within the discretion of the Secretary of Agriculture. *Id.* § 1133(d)(1). Another exception that has yet to be utilized is one which allows the President to authorize the construction and maintenance of permanent roads within wilderness areas for the purposes of building or maintaining reservoirs, water-conservation works, power projects, transmission lines, or other facilities, based solely on his determination that such uses "will better serve the interests of the United States and the people thereof than will its denial." *Id.* § 1133(d)(4).

201 *Id.* § 1133(c).

202 *Id.* § 1133(d)(1).

203 *See, e.g.*, McCloskey, *supra* note 134, at 310 (arguing that these measures were "authorized with the thought in mind that it would often be necessary to protect adjacent land outside of wilderness from the spread of fire and disease within wilderness boundaries"); Rohlf & Honnold, *supra* note 140, at 269–70 & n. 124 ("Commercial interests opposed to wilderness legislation feared that restrictions on federal authority to control fire, insects, and diseases within wilderness might threaten nearby resources.").

In one of the few legal opinions directly interpreting this exception, the district court for the District of Columbia, in 1987, considered a challenge to USFS's use of extensive tree harvests and chemical spraying to prevent beetle infestations from spreading to adjacent timberlands.[204] In issuing a preliminary injunction against the program, the court held that the program was "wholly antithetical to the wilderness policy established by Congress."[205] While the court acknowledged that the Wilderness Act allowed for such actions to be taken for purposes of protecting "outside commercial and other private interests," even when contrary to wilderness preservation, the Secretary's discretion in such instances is limited; the activity must be shown to be "necessary to effectively control the threatened outside harm that prompts the action being taken."[206] USFS complied with the court's order and greatly curtailed its proposal to call only for "spot-control" cutting in and around a wilderness area. The court upheld this proposal even though it "f[e]ll short of full effectiveness,"[207] finding that the proposal was "reasonably designed" to control the beetle infestation and limited to areas necessary to protect endangered woodpeckers and other valuable resources.[208] The court also based its decision on USFS's adoption of a monitoring program to guarantee a project's effectiveness at each control site and the agency's demonstration that the program was designed to protect wilderness resources (rather than to benefit outside commercial interests).[209]

There has been much more case law regarding the allowance for certain non-conforming uses when "necessary to meet minimum requirements for the administration of the area for the purpose of [the Wilderness Act]"—sometimes referred to as the "minimum requirements" exception.[210] As one federal court recently noted, these cases show that courts "have construed this phrase narrowly."[211] First, courts have rightly interpreted the use of the singular "purpose" in this provision, despite there being other secondary purposes embedded in the Act, as referring to the purpose of preserving the wilderness character of such areas, including the opportunity for solitude or primitive recreation (but not any particular type of recreation) found there.[212] Moreover, the words "necessary" and "minimum requirements" together

204 Sierra Club v. Lyng (*Lyng I*), 662 F. Supp. 40, 41 (D.D.C. 1987).

205 *Id.* at 43.

206 *Id.* at 42–43.

207 Sierra Club v. Lyng (*Lyng II*), 663 F. Supp. 556, 560 (D.D.C. 1987).

208 *Id.*

209 *Id.* at 558–60.

210 Wilderness Act, 16 U.S.C. § 1133(c) (2006).

211 Wolf Recovery Found. v. U.S. Forest Serv., 692 F. Supp. 2d 1264, 1267 (D. Idaho 2010) (quotations omitted).

212 *Id.* at 1268; Wilderness Watch v. Mainella, 375 F.3d 1085, 1093 (11th Cir. 2004) (striking down the National Park Service's use of vans to transport tourists across a wilderness area based on it not serving "the purpose" of the Act, which the court defined as being the preservation of wilderness areas so that they can provide "opportunities for a primitive and unconfined type of recreation"); High Sierra Hikers Ass'n v. U.S. Forest Serv., 436 F. Supp. 2d 1117, 1134 (E.D. Cal. 2006) ("[I]t is not possible to infer from this language that establishment (much less enhancement) of opportunities for a particular form of human recreation is *the* purpose of the Wilderness Act." (emphasis added)).

seem to require both that the goals of the activity be integral to the wilderness character of the area, and that the activity be the "minimum tool" (least disruptive of the wilderness) for achieving those goals.[213]

V. RESOLVING THE PROBLEM OF WILDLIFE RESTORATION IN WILDERNESS AREAS

Resolution of each of the cases discussed in Part II ultimately depended upon the respective court's interpretation of the Wilderness Act's purpose, its definition of "wilderness," and the scope of the "minimum requirements" exception. Each case forced the court to determine whether the purported conservationist purpose of the agency action was consistent with preserving wilderness character, and in each case, the court failed to offer an internally consistent framework to guide agency decisions in the future.

A. Restoration of Bighorn Sheep in the Kofa Wilderness

In September 2008, the federal court for the District of Arizona upheld the construction of water tanks and the use of motorized equipment in the Kofa Wilderness Area.[214] Wilderness Watch, and the other co-plaintiffs,[215] appealed that decision, and just over two years later the Ninth Circuit Court of Appeals reversed and held that the construction violated the Wilderness Act.[216] Whereas the district court had given *Chevron* deference to the FWS's interpretation of that statute,[217] the Ninth Circuit held that it was instead entitled only to the lesser *Skidmore* respect, based on the observation that the relevant interpretation, contained in a management plan, did not carry the "force of law."[218] Nonetheless, finding that the plan was subject to public review and comment and that the legal interpretations of the Wilderness Act's requirements were consistent with past agency interpretations, the court concluded that it should defer to the agency's interpretation, particularly its conclusion that the conservation of bighorn sheep is consistent with the Wilderness Act.[219] That the court still invalidated the action once again

213 The Wilderness Society has advanced this view, arguing that, "[t]he fundamental guiding principle for administrative activities should be whether, given the conditions specific to that site, the action is necessary to protect physical and biological resources or enhance wilderness attributes of naturalness and solitude. If the action is deemed necessary then it should make use of methods and equipment which will accomplish the task with the least impact on the physical, biological and social characteristics of wilderness . . . " WILDERNESS SOC'Y, THE WILDERNESS ACT HANDBOOK 44 (1984); *see also Wilderness Watch*, 629 F.3d 1024, 1037 (9th Cir. 2010) (finding that the Act "requires the agency to make a finding of necessity," for an exception to apply, and that "a *generic* finding of necessity does not suffice"); *High Sierra Hikers Ass'n*, 436 F. Supp. 2d at 1134 (reasoning that opportunities for recreation, such as fishing, though a part of the wilderness experience, are not a "necessary duty of wilderness area management").

214 Wilderness Watch, Inc. v. U.S. Fish and Wildlife Serv. at *12 (D. Ariz. 2008), No. CV-07-1185-PHX-MHM, 2008 WL 4183040, *rev'd*, 629 F.3d 1024 (9th Cir. 2010).

215 *See supra* note 40 and accompanying text.

216 *Wilderness Watch*, 629 F.3d at 1040.

217 *Wilderness Watch*, 2008 WL 4183040, at *8.

218 *Wilderness Watch*, 629 F.3d at 1035.

219 *Id.* at 1035–36.

confirmed Appel's analysis that courts scrutinize more heavily decisions affecting the wilderness resource than decisions in other contexts.[220]

In striking down the construction of water tanks, the court analyzed the prohibition on structures and the "minimum requirements" exception. The court reasoned that the Act, taken "as a whole," gives "conflicting policy directives to the [FWS] in administering the area," including the mandates to preserve its wilderness character, to provide opportunities for recreation, to manage fire and insect risks, and to facilitate mineral extraction.[221] Considering that the historical purpose of the refuge was to preserve wildlife, including bighorn sheep, and that "conservation" was an explicit purpose in the Act, the court accepted the FWS's contention that efforts to restore bighorn sheep populations could include activities explicitly prohibited by the Act, so long as the agency "made an adequately reasoned determination of necessity."[222] However, the court found that FWS had failed to provide adequate reasoning in that it seemingly assumed the proposed actions were necessary without considering whether other potential measures would have sufficed.[223]

While the court was correct in its conclusion that FWS had not met its burden in showing that the construction of water tanks was necessary, its holding that the restoration of bighorn sheep populations was a purpose which triggered the exception in the first place was flawed. The court misconstrued the "minimum requirements" exception. That exception allows for motorized vehicles and human installations not when necessary to achieve *a* purpose of the Wilderness Act, but when necessary to achieve *the* purpose—namely, preserving the wilderness character of the area.[224] Both FWS and the court rightly reasoned that the conservation of bighorn sheep was a principal motivation behind the area's initial establishment as a game refuge in 1939, and then as a wildlife refuge in 1976.[225] However, once Congress designated most of the refuge as a wilderness area in 1990,[226] the purpose of bighorn sheep conservation became one of many secondary purposes—along with recreation, aesthetics, science, education, and historical use—which were made subject to the Act's primary purpose of preserving the area's wilderness character. In creating the wilderness area, Congress could have provided an additional exception for structures or installations necessary for bighorn sheep conservation, but it did not do so.[227]

220 *Wilderness and the Courts*, *supra* note 104, at 111.

221 *Wilderness Watch*, 629 F.3d at 1033.

222 *Id.* at 1035–36.

223 *Id.* at 1037–38 ("[T]he Service's own documentation strongly suggests that many other strategies could have met the goal of conserving bighorn sheep without having to construct additional structures.").

224 Wilderness Act, 16 U.S.C. § 1133(c) (2006).

225 *See Wilderness Watch*, 629 F.3d at 1035.

226 Arizona Desert Wilderness Act of 1990, Pub. L. No. 101-628, § 301(a)(3), 104 Stat. 4469, 4478; *Wilderness Watch*, 629 F.3d at 1027.

227 *See, e.g.*, Arizona Desert Wilderness Act of 1990, Pub. L. No. 101-628, § 101(f)–(g), (i), (j), 104 Stat. at 4473 (showing Congressional intent to except from the wilderness designation certain water and livestock grazing rights, military activities and mineral exchanges).

Although the court did not directly connect bighorn sheep conservation with the purpose of preserving the area's wilderness character, the State of Arizona, which had intervened on the side of FWS, contended that maintaining and restoring the bighorn sheep population furthered the purpose of the Wilderness Act to preserve the area's wilderness character.[228] However, evidence indicated that bighorn sheep populations in fact had varied considerably prior to the establishment of the wildlife refuge in 1976, with the population in the 1970s ranging from 200 to 375 sheep, less than the reported population of 390 sheep in 2006 that prompted the restoration plan.[229] Given that fact, there is little support for the contention that a population of between 600 and 800 sheep (the area's "carrying capacity," according to FWS[230]) is any more "natural"—or renders the area any more of a "wilderness"—than a lesser population. This was not an attempt to save a species from extinction, but rather, part of a broader effort to enhance the population of a species desired for its recreational and cultural importance. This conclusion is shown by the fact that hunting permits were not restricted even after the drop in population, and by the fact that one of the solutions was the removal of members of another species, the mountain lion.[231] These purposes, while legitimate outside of wilderness areas, should not be used to justify interventions into the natural processes inside of these areas.

B. Tracking of Gray Wolves in the River of No Return Wilderness

In early 2010 the federal court for the District of Idaho upheld the use of helicopters and radio collars in tracking reintroduced gray wolves and their offspring in the Frank Church River of No Return Wilderness.[232] Under the Wilderness Act and the Central Idaho Wilderness Act,[233] aircraft landings are strictly prohibited in the wilderness area, except at designated landing strips that were in regular use at the time of the wilderness designation or where meeting the "minimum requirements" exception.[234] The court upheld the permit for helicopter flights and landings based on their being necessary "to improve the understanding of the character of the wilderness prior to man's

228 State of Arizona's Cross Motion for Summary Judgment and Response to Plaintiffs' Motion for Summary Judgment at 7, Wilderness Watch, Inc. v. U.S. Fish & Wildlife Serv., No. CV-07-1185-PHX-MHM (D. Or. Feb. 1, 2008), 2008 WL 760740.

229 Plaintiffs-Appellants' Opening Brief, *supra* note 9, at 5.

230 *Wilderness Watch*, 629 F.3d at 1028–29.

231 KOFA INVESTIGATIVE REPORT, *supra* note 26, at 13–14, 19–20; *see also* Spencer, *supra* note 6, at 57 (arguing that the reason for bighorn sheep restoration was that it was "[h]ighly valued as both a trophy hunting animal that brings in a significant amount of revenue to state agencies through the sale of hunting licenses, as well as an iconic species that symbolizes wildness in the desert southwest").

232 *Wolf Recovery Found.*, 692 F. Supp. 2d, 1264, 1265–66 (D. Idaho 2010). The court did not address the standard of review for the agency's interpretation of the Wilderness Act. *See also* USFS SPECIAL USE AUTHORIZATION, *supra* note 55, at 2 (authorizing "helicopter landings and aerial darting necessary to support . . . wolf collaring efforts").

233 Central Idaho Wilderness Act of 1980, Pub. L. No. 96-312, 94 Stat. 948.

234 Wilderness Act, 16 U.S.C. §§ 1133(c) & (d)(1) (2006); Central Idaho Wilderness Act of 1980, § 7(a)(1), 94 Stat. 948, 950.

intervention and the predator/prey relationship that existed in the past," as well as their importance to the "long-term viability" of the gray wolf population and "a balance among prey and predator."[235] The court concluded that "the collaring project and its use of helicopters is sufficiently limited and focused on restoring the wilderness character of the area that it falls within the phrase 'necessary to meet minimum requirements for the administration of the area.'"[236] This decision was flawed in its conclusion that helicopters were necessary for the gathering of information on wolves and in its conclusion that a human-regulated population of gray wolves was integral to wilderness character.

Serious questions were raised regarding the necessity of helicopter use for achieving the purpose of acquiring information on wolf populations and their movements. In requesting the permit, Idaho Department of Fish and Game Director Cal Groen stated that "[f]ourteen years of efforts to trap and collar wolves in wilderness areas on foot and by horseback have proved largely unsuccessful," implying that the use of helicopters to hover above the ground and land in the wilderness area was necessary.[237] The USFS's decision memorandum granting the permit merely repeated the IDFG's claims that past efforts to trap and collar wolves in the wilderness had been unsuccessful and thus, the use of helicopters was necessary.[238]

USFS did not disclose, much less discuss, the fact that the Nez Perce Tribe, in its management of wolves after their reintroduction in the 1990s, had managed to trap and collar approximately thirty wolves within the Frank Church Wilderness without using helicopters.[239] According to the plaintiffs, this reveals that the use of helicopters to capture and collar wolves is "*not* the 'minimum tool' necessary for wolf monitoring or research," and therefore, such action "violates the express mandates of the Wilderness Act."[240] The court found the plaintiffs' claim unpersuasive, however, based on the fact that USFS considered the alternative of using leg-hold traps—the method the Nez Perces used—rather than radio-collaring, but rejected the use of these traps because USFS found them to be less effective, more dangerous and intrusive to human users, and less humane to the wolves than using helicopters and aerial darting.[241] This was quite a sleight of hand. The importance of the Nez Perces' experiences was not that they used leg-hold traps rather than radio-collaring, but that they were able to do so without the aid of helicopters. While USFS considered following the

235 *Wolf Recovery Found.*, 692 F. Supp. 2d at 1268 (internal quotation marks and citations omitted).

236 *Id.*

237 Jon Duval, *Feds OK Helicopters in Frank Church: Plan to Collar Wolves Angers Conservationists*, IDAHO MOUNTAIN EXPRESS, http://www.mtexpress.com/story_printer.php?ID=2005129301#1 (last visited at *12 (D. Ariz. 2008)).

238 First Amended Complaint, *supra* note 65, at 18–19.

239 *See id.* at 9, 18–19.

240 *See id.* at 25 (emphasis added).

241 *Wolf Recovery Found.*, 692 F. Supp. 2d at 1268 ("Scattering leg-hold traps about the wilderness area, with their associated signage and trapper presence, would . . . denigrate the wilderness experience as much as a helicopter.").

Nez Perces in using leg-traps rather than radio-collaring, both it and the court failed to consider the alternative of using radio-collaring *without* helicopters—something the Nez Perces' track record suggests was feasible.

Another question is whether the purposes of the project were indeed consistent with preserving the area's wilderness character. In issuing the permit, USFS insisted that "[b]ecause of the importance of wolf recovery to enhancement of wilderness character, the high public interest in the recovery of wolves and the desire for knowledge about wolves in central Idaho, it is important that IDFG obtain accurate wolf population data for [the] central Idaho wilderness."[242] The agency, in other words, claimed that collecting information on wolves was necessary for the protection of the gray wolf, and that gray wolves themselves were a crucial component of the area's wilderness character. However, due to the success of the wolf reintroduction of the 1990s, the gray wolves of Idaho were no longer threatened or endangered,[243] and no showing was made that any affirmative steps on the part of USFS was needed to ensure the continued viability of the gray wolf population. Indeed, the IDFG collaring program was more likely meant to allow more wolf killings, given Idaho's official policy of removing wolves from the state.[244]

To be sure, the radio-collaring project could aid in human scientific understanding of "wolf movement, distribution, behaviors, and rendezvous and denning sites," as USFS claimed, and this information would also serve the legitimate purpose of managing the recreation aspects of the wilderness resource by allowing USFS to make better decisions regarding "outfitter camp locations and trail routings, and for use in visitor education efforts."[245] However, while wilderness areas were set aside in part for their scientific and recreational value, and while land managers were directed to administer these areas for "such other purposes," the Wilderness Act required that these values be furthered only as consistent with the preservation of the "wilderness character" of such areas—not as countervailing purposes which might allow for a balancing of wilderness preservation with these other anthropocentric values of wilderness.

Furthermore, even if the gathering of information on gray wolves was necessary to preserve gray wolf populations, it would not necessarily further the goal of preserving the area's wilderness character. This is measured not by the extent to which certain configurations of wildlife match the conditions which may have existed without "post-aboriginal" settlement, but by the extent to which "the earth and its community of life"

242 *Id.* at 1266.

243 Final Rule to Identify the northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment and To Revise the List of Endangered and Threatened Wildlife, 74 Fed. Reg. 15123 (Apr. 2, 2009) (codified at 50 C.F.R. § 17.11) (removing gray wolves within the "eastern one-third of Washington and Oregon, a small part of north-central Utah, and all of Montana [and] Idaho," but not in Wyoming).

244 *See* Letter from Gary McFarlane, Board Member, Wilderness Watch, to William Wood, Forest Supervisor, Salmon Challis Nat'l Forest at 2 (Oct. 16, 2009), *available at* http://www.wildernesswatch.org/pdf/RONRWHeliwolvesscope09.pdf.

245 USFS SPECIAL USE AUTHORIZATION, *supra* note 55, at 1–2.

remains wild or untrammeled and the extent to which an area remains uninhabited, unimproved, and unsettled by humans. While wildlife is indeed a crucial component of wilderness, a particular ecological composition of wildlife is not.

Gray wolves were certainly at one time a critical part of the naturally functioning ecosystems in central Idaho, but their existence and population characteristics there today cannot be said to be "natural."[246] Whatever the merits of preserving viable populations of gray wolves, the success of this project depends less on nature than upon a negotiation among humans and a political balancing of disparate cultural imperatives. On one side are those who favor a thriving population of gray wolves, whether to promote biodiversity or ecosystem services, to gain scientific understanding of a particular ecology, or to promote the recreational benefits of observing or hunting such predators.[247] On the other are those who favor restricting their numbers or movements because of their inevitable conflicts with other forms of life, which the vast majority of humans favor as sources of energy consumption or other consumer products.[248] While balancing these demands—which are rooted in culture and find expression through the political process—is a legitimate management exercise on public lands outside of wilderness areas, it has little (if any) place inside of them.[249]

C. Restoration of Paiute Cutthroat Trout in the Carson-Iceberg Wilderness

In September 2011, the federal court for the Eastern District of California struck down the USFS's authorization for the PCT restoration project as violating the Wilderness Act.[250] As in the Ninth Circuit's resolution of the case involving water installations in the Kofa Wilderness,[251] the court began by considering the appropriate level of deference to grant an agency's statutory interpretation. The court formed

246 *See* Klein, *supra* note 57, at 88–89, 111 (arguing for the reintroduction of gray wolves in central Idaho in order to replace a diminished natural wolf population that could not recover on its own).

247 *See, e.g.*, Robert C. Moore, *The Pack is Back: The Political, Social, and Ecological Effects of the Reintroduction of the Gray Wolf to Yellowstone National Park and Central Idaho*, 12 T.M. COOLEY L. REV 647, 678–81 (1995) (describing the positions held by opponents and advocates regarding the proposition to restore gray wolves in the northern Rockies).

248 *See* Klein, *supra* note 57, at 109 ("The interest in avoiding the adverse financial effects of wolf reintroduction on livestock producers has been satisfied to some extent . . . . This is a valid interest; wolves do kill livestock and such losses hurt livestock producers financially.").

249 *See id.* at 88 (arguing that the wolf has become "largely a symbol," with some seeing the animal as "a threat to the traditional Western rural lifestyle" and others seeing it as "a positive symbol of nature and the last vestiges of wilderness and wildness"). *See generally* John A. Vucetich et al., *The Normative Dimension and Legal Meaning of Endangered and Recovery in the U.S. Endangered Species Act*, 20 CONSERVATION BIOLOGY 1383 (2006) (arguing for more stringent recovery plans for many species, including the gray wolf, based on the legal meanings of "endangerment" and "recovery," which require the ESA to incorporate the collective value that U.S. citizens place on nature into recovery plans).

250 *Californians for Alternatives to Toxics*, 814 F. Supp. 2d 992, 996–97 (E.D. Cal. 2011).

251 *See* discussion *supra* Part II.A.

the issue as whether the purpose of wildlife conservation is a purpose of the Act that would allow for non-conforming uses (such as motorized equipment) when found to be necessary for achieving that purpose.[252] Because the agency interpretation was included only in a decision approving a particular project, with no binding effect on future decisions, the court rightly reasoned that it was entitled only to *Skidmore* respect based on the persuasiveness of USFS's justification for its decision.[253]

Applying the *Skidmore* standard of review, the court agreed with USFS that "reestablishing a native species in a wilderness area, independent of the means for reaching that goal, enhances the primitive character of an ecosystem and serves a conservation purpose (not a recreational purpose), permissible under the Act."[254] It then had to determine whether USFS had adequately shown that the program was necessary for conserving the PCT, thereby fitting within the "minimum requirements" exception.[255] Like the Ninth Circuit had done in the Kofa case, the court here seemed to ignore that the exception allows for motorized vehicles and other prohibited activities only when necessary to achieve *the* purpose, not when necessary to achieve *any* purpose of the Wilderness Act. In many cases, wildlife conservation will be consistent with "*the purpose*" of the Act—namely, wilderness preservation—but not in all cases. The court should have required the agency to demonstrate not only that the authorized activities were necessary for PCT restoration, but also that PCT restoration, in turn, was necessary for wilderness preservation.

The court, however, correctly construed the exception's requirement for necessity, calling it "one of the strictest prohibitions in the Act."[256] It also recognized that when there is a conflict between wilderness preservation and any other purpose, "the general policy of maintaining the primitive character of the area must be supreme."[257] The court went on to find that while USFS demonstrated that the use of "motorized equipment was necessary to achieve conservation of the PCT," USFS failed to show that "the extent of the project was necessary," and struck down the project on that basis.[258] According to the court, USFS specifically failed to show that the project would improve, as it had claimed, the long-term natural conditions of the area's wilderness character, in that it had failed to consider the potential loss or extinction of other native species.[259] Given this failure, and considering the evidence showing that "all living organisms within [the project area] would be eradicated," the court reasoned that "implementat[ion] of this Project would *impede* progress towards preserving the overall wilderness character," and that "[d]espite the benefits gained

252 *Californians for Alternatives to Toxics*, 814 F. Supp. 2d at 1013–14.

253 *See id.* at 1014.

254 *Id.* at 1016.

255 *Id.*

256 *Id.* (citing *Wilderness Watch*, 629 F.3d 1024, 1040 (9th Cir. 2010)).

257 *Id.* (quoting High Sierra Hikers Ass'n v. U.S. Forest Serv., 436 F. Supp. 2d 1117, 1131 (E.D. Cal. 2006)).

258 *Id.* at 1018, 1019 (emphasis omitted).

259 *Id.* at 1019.

from restoring a PCT population, accounting for the potential loss of endemic species would create a net, *negative* impact."[260] Even though the court suggested that conservation interests can in some cases "trump the preservation of wilderness character"[261]—a position with which this Article disagrees—the court should be commended both for not conflating "wildlife conservation" (or restoration) with "wilderness preservation," and for placing a very high bar to meet in order to act in contravention of wilderness preservation, even if such actions serve a conservation purpose.

VI. CONCLUSION

It has become fashionable to point to various paradoxes embedded within the Wilderness Act, from the supposed conflict between its multiple justifications (providing for unique recreational opportunities versus preserving their wilderness character), to the purported tensions between the characteristics to be preserved (wildness versus pristine naturalness), to the very paradox of managing wilderness in the first place.[262] The notion that the Wilderness Act's provisions contradict one another has influenced the management of wilderness areas, as well as the judicial branch's oversight of it. While the judiciary has shown greater inclination to second-guess administrative interpretations of the Act than it has in other contexts, confusion as to the definition of "wilderness," and what it means to protect or to "preserve" that wilderness, has led to a muddled jurisprudence. For their part, wilderness managers have generally interpreted their mandate to preserve wilderness areas to allow for (if not require) interventions into their ecologies for the sake of protecting ecosystems from both internal and external human threats, even as they recognize the internal contradictions that arise from such an assumption.

This Article contends that the seeming paradoxes embedded in the Wilderness Act arise not from the legislation itself, but rather from how it has been misinterpreted. The fundamental purpose of the Wilderness Act is to preserve the wilderness characteristics of certain areas of the country.[263] That the primary rationale behind this was (at least partly) anthropocentric—to provide a recreational, aesthetic, educational, or scientific resource to the American people[264]—does not create a conflict with the preservation mandate, for there must in fact be a wilderness preserved for use before it can serve any of these other purposes. The Act should not be seen as presenting a conflicting mandate requiring a balance between

260 *Id.* at 1019, 1020.

261 *Id.* at 1021.

262 *See* Rohlf & Honnold, *supra* note 140, at 271 (arguing that "maintaining the natural ecology of many wilderness areas requires human intervention," thereby creating a "paradox of human intervention"); Landres et al., *supra* note 183, at 379–80. *See generally* Cole, *Ecological Manipulation in Wilderness*, *supra* note 183; Stephenson & Millar, *supra* note 6; Zellmer, *supra* note 190.

263 Wilderness Act, 16 U.S.C. § 1131 (2006).

264 *Id.* § 1131(c).

preservation and utilization. In preserving wilderness areas, management agencies are required to protect both their wildness and their naturalness,[265] two concepts that have been construed as creating management dilemmas.[266] However, as they were incorporated into the Act, these concepts actually complement each other. Wilderness areas must be managed so as to minimize manipulations of their natural processes (to keep them wild) and to prohibit certain human activities deemed "unnatural"—namely human improvements, inhabitation, and development. Finally, "wilderness management" is only a paradox in itself if that term is interpreted as applying to the natural processes within wilderness areas rather than to certain human activities occurring therein.

It is certainly laudable to seek to protect wilderness areas from perceived degradation at the hands of the modern human societies that surround them. But in all cases, this desire should be balanced with a keen awareness that we are merely one species among many, and we do not (and cannot) know everything. With this in mind, it is still a worthwhile endeavor to seek to restore ecologies which have been unduly degraded through human behaviors, but it is also worthwhile to keep some areas beyond our manipulative reach altogether. This is not just so they can retain their "wilderness character" or the "mood of wild America,"[267] but out of proper respect for the natural world of which we are but a small part. This is indeed what Congress mandated with its passage of the Wilderness Act. If America now deems conservation of particular resources—whether conceived of as timber or trees, forage or grass, minerals or rock, or game or wildlife—as being too important to allow for the preservation of small areas of wilderness, a change in law is required to implement that value judgment. And I, for one, look forward to that debate.

265 *See* Landres et al., *supra* note 183.

266 *See* Cole & Hammitt, *supra* note 6, at 59.

267 NAT'L RES. COUNCIL, SCIENCE AND THE NATIONAL PARKS 44 (1992) (quoting Memorandum from Stewart Udall, Sec. of the Interior, Dep't of the Interior, to Nat'l Park Service (May 2, 1963)).