



Fall 2011

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Recommended Citation

Gordon Steinhoff, *The Wilderness Act, Prohibited Uses, And Exceptions: How Much Manipulation of Wilderness is Too Much*, 51 Nat. Resources J. 287 (2011).

Available at: <https://digitalrepository.unm.edu/nrj/vol51/iss2/6>

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GORDON STEINHOFF*

The Wilderness Act, Prohibited Uses, and Exceptions: How Much Manipulation of Wilderness Is Too Much?

ABSTRACT

The Wilderness Act of 1964 prohibits a number of uses in federally designated wilderness areas. In accordance with the Act, there shall be no permanent or temporary roads, no use of motor vehicles, motorized equipment, landing of aircraft, or placement of structures or installations. The Act includes an important clause that allows exceptions. The Act states that temporary roads, motor vehicles, structures and installations, etc., are prohibited "except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act." As will be discussed, this obscure clause has been widely misinterpreted by federal agencies so that it is far too vague, allowing manipulations that are too extensive and destructive of wilderness resources. This article will present a more precise and correct interpretation of the exception clause. Properly interpreted, the Wilderness Act allows needed manipulations of wilderness, such as the construction of trails and bridges, yet rules out actions that are too destructive.

INTRODUCTION

The Wilderness Act of 1964¹ (Wilderness Act; the Act) prohibits a number of uses in federally designated wilderness areas. The Act prohibits commercial enterprises within these areas. In accordance with the Act, there shall be no permanent or temporary roads, no use of motor vehicles, motorized equipment, landing of aircraft, or placement of structures or installations. The Act states:

[T]here shall be no commercial enterprise and no permanent road within any wilderness area designated by this [Act] and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this [Act] (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary

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1. 16 U.S.C. §§ 1131–1136 (2006).

road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.²

With its prohibition of structures, the Wilderness Act apparently prohibits trails and bridges within wilderness areas. "Structure" is defined as something that is constructed, that is, formed by combining parts, for example, a building.³ A bridge is obviously a structure. It is fair to say that a wilderness trail is a structure. A properly designed trail is constructed out of several parts, including a surface layer and water bars (logs, boards, or rocks) installed across the trail at an appropriate angle for shunting water off the surface. Cross ditches, parallel ditches, and culverts (wood, metal, or fiberglass) buried beneath the trail are used to direct water from the surface.⁴ For trails that cross wet areas, sections of trail may be elevated using turnpikes (fill supported by logs or flat rocks).⁵ With its prohibition of structures, the Wilderness Act apparently prohibits trails, bridges, wooden walkways (punchions) across muddy areas, fireplaces, toilets, fences, stock holding facilities, and other commonly used facilities within wilderness areas.⁶ Yet federal agencies with management responsibilities for wilderness assert in their wilderness policies that trails are acceptable within these areas.⁷ As argued by experts in wilderness management, trails provide critical access to wilderness, and bridges, wooden walkways, fireplaces, toilets, etc., are important for visitor safety and protecting wilderness resources from heavy use.⁸ Such facilities are not generally perceived as "overdevelopment."

2. *Id.* at § 1133(c). Concerning the prohibition of commercial enterprises, the Act allows commercial services within wilderness "to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas." See § 1133(d)(5).

3. MERRIAM-WEBSTER, <http://www.merriam-webster.com> (last visited Apr. 10, 2011).

4. David N. Cole, *Ecological Impacts of Wilderness Recreation and Their Management*, in WILDERNESS MANAGEMENT: STEWARDSHIP AND PROTECTION OF RESOURCES AND VALUES 413, 443 (John C. Hendee & Chad P. Dawson eds., 2002); see also WOODY HESSELBARTH, TRAIL CONSTRUCTION AND MAINTENANCE NOTEBOOK (2007).

5. Cole, *supra* note 4, at 444.

6. Cole, *supra* note 4, at 434, 443-44; see also John C. Hendee & Chad P. Dawson, *Wilderness Visitor Management: Stewardship for Quality Experiences*, in WILDERNESS MANAGEMENT: STEWARDSHIP AND PROTECTION OF RESOURCES AND VALUES 461, 479-81 (John C. Hendee & Chad P. Dawson eds., 2002).

7. See, e.g., U.S. FOREST SERV., FOREST SERVICE MANUAL, 2320 WILDERNESS MANAGEMENT 20 (2007), http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsm?2300.

8. Cole, *supra* note 4, at 434, 443-44; Hendee & Dawson, *supra* note 6, at 479-81.

The Wilderness Act includes an important clause that allows exceptions to some of the general prohibitions. The Act specifies (in the passage quoted above) that temporary roads, motor vehicles, structures and installations, etc., are prohibited “except as necessary to meet minimum requirements for the administration of the area for the purpose of this [Act].”⁹ As will be discussed, this obscure clause has been widely misinterpreted by federal agencies so that it is far too vague, allowing manipulations that are too extensive and destructive of wilderness resources. In the Kofa Wilderness area in Arizona, for example, the U.S. Fish and Wildlife Service relies on this exception clause in its proposal to construct watering facilities (called “guzzlers”) for desert bighorn sheep. The goal is to increase the size of the resident bighorn sheep population.¹⁰ The project has led to litigation. This article will present a more precise and correct interpretation of the exception clause. Properly interpreted, the Wilderness Act allows needed manipulations of wilderness such as the construction of trails and bridges, yet rules out actions that are too destructive.

I. THE WILDERNESS ACT’S EXCEPTION CLAUSE

In their classic wilderness management text, Hendee and Dawson interpret the Act’s exception clause as allowing generally prohibited uses when an action involving such uses is the “minimum necessary for managing the area as wilderness.”¹¹ This is quite vague. No indication is given of precisely what this means. Federal agencies with responsibilities for managing wilderness have adopted similarly vague language in their policy documents. According to the U.S. Forest Service, motorized equipment and mechanical transport are allowed in a wilderness area in emergencies or “[to] meet minimum needs for protection and administration of the area as wilderness”¹² Agency managers are left with much discretion in determining what constitutes “protection and administration of the area as wilderness.” Concerning communication structures, the *Forest Service Manual* states, “Maintain communication structures only as necessary for administration and protection of the wilderness.”¹³ It is interesting to note that the *Forest Service Manual* simply

9. 16 U.S.C. § 1133(c) (2006). The Act clearly conveys that such prohibited uses are allowed when “required in emergencies involving the health and safety of persons within the area.” *Id.*

10. *See Wilderness Watch, Inc. v. U.S. Fish and Wildlife Service*, No. CV-07-1185-PHX-MHM, 2008 WL 4183040 (D. Ariz. Sept. 8, 2008).

11. Hendee & Dawson, *supra* note 6, at 112.

12. U.S. FOREST SERV., *supra* note 7, at 53.

13. *Id.* at 50.

asserts, without justification, that trails are an “acceptable improvement” in wilderness.¹⁴ The manual gives brief directions for designing and locating bridges.¹⁵

According to the Bureau of Land Management, “tools, equipment, or structures” may be used in a wilderness area for the health and safety of visitors, or when they are the “minimum necessary for protection of the wilderness resource.”¹⁶ Managers “must use the *minimum* tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective.”¹⁷ No constraints are placed upon what constitutes “protection of the wilderness resource” and so on the objectives managers may adopt. The Bureau of Land Management’s manual also simply asserts that trails are an “acceptable improvement” in wilderness.¹⁸

The National Park Service’s *Management Policies* also rely on vague language. Administrative facilities such as ranger stations, patrol cabins, radio and cell phone towers, drift fences, and stock holding facilities are allowed in a wilderness area “only if they are determined to be the minimum requirement necessary to carry out wilderness management objectives.”¹⁹ This language is vague and somewhat confusing. “The minimum requirement necessary” does not really make sense. According to National Park Service (Park Service) policies, motorized equipment or mechanical transport may be used within a wilderness area in emergency situations or when such use is determined to be “the minimum requirement needed by management to achieve the purposes of the area, including the preservation of wilderness character and values, in accordance with the Wilderness Act.”²⁰ The policies require managers only to *consider* the impacts of such use on a number of wilderness qualities, including natural conditions, solitude, opportunities for a primitive and unconfined type of recreation, and cultural resources.²¹ Of course, the use of motorized equipment or mechanical transport in wilderness will degrade natural conditions, solitude, and perhaps other wilderness qualities to some extent. Managers are left with much discretion

14. *Id.* at 20.

15. *Id.*

16. BUREAU OF LAND MGMT., U.S. DEP’T OF THE INTERIOR, MANAGEMENT OF DESIGNATED WILDERNESS AREAS .13 (1983), http://www.wilderness.net/NWPS/documents/BLM/BLM_Manual_Wilderness.pdf.

17. *Id.*

18. *Id.* at .31B(a)(1).

19. NAT’L PARK SERV., U.S. DEP’T OF THE INTERIOR, MANAGEMENT POLICIES 2006 84 (2006), <http://www.nps.gov/policy/mp2006.pdf>.

20. *Id.* at 82.

21. *Id.* at 81.

in balancing desired “purposes of the area” with the preservation of such qualities. Managers have much discretion, then, in the use of motorized equipment and mechanical transport in wilderness. Park Service policies also simply assert, “Trails will be permitted within wilderness.”²²

Many wildlife refuges managed by the U.S. Fish and Wildlife Service include lands that have been designated as wilderness areas.²³ According to the agency’s *Service Manual*, temporary roads, motor vehicles, structures, and other generally prohibited uses may be allowed within a wilderness area in emergencies or when they are “the minimum requirement for administering the area as wilderness and are necessary to accomplish the purposes of the refuge, including Wilderness Act purposes.”²⁴ Of course, the Wilderness Act’s exception clause does not base exceptions on the need to accomplish the purposes of a wildlife refuge. As with Park Service policies, managers are required only to *consider* impacts of a proposed action on natural conditions, solitude, and other wilderness qualities.²⁵ Managers have much discretion in balancing the purposes of a particular refuge with the preservation of such qualities. As is the case with Park Service policies, this is too weak, allowing management that is skewed (or slanted) toward one use of a wilderness area with significant impairment of wilderness resources (see examples below).

Properly interpreted, the Wilderness Act’s exception clause is highly protective of wilderness. The key is to understand what is meant by “the purpose” of this Act.²⁶ Unfortunately, this is not clearly indicated within the Act itself. One must rely on careful reading. The Act opens with this statement of policy:

In order to ensure 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, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be

22. *Id.* at 84.

23. See U.S. FISH AND WILDLIFE SERV., NATURAL AND CULTURAL RESOURCES MANAGEMENT: PART 610 WILDERNESS STEWARDSHIP 1.9 (2008), www.fws.gov/policy/610fw1.pdf [hereinafter PART 610 WILDERNESS STEWARDSHIP] (“The Refuge System includes over 20 million acres of wilderness in more than 60 refuges”).

24. *Id.* at 1.16B.

25. *Id.* at 1.18.

26. 16 U.S.C. § 1133(c) (2006).

composed of federally owned areas designated by Congress as “wilderness areas,” and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character²⁷

In the statement above, “[f]or this purpose” refers back to the previous sentence declaring congressional policy. The purpose referred to is clearly “to secure for the American people . . . the benefits of an enduring resource of wilderness.”²⁸ That this is the fundamental purpose of the Act makes much sense given the earlier statement of congressional concern. Congress was concerned that all wild lands in the United States are gradually being modified by an increasing population, leaving no lands preserved in their natural condition. The fundamental purpose of the Act, then, is to ensure that the American people will continue to enjoy the benefits of unoccupied, unmodified wild lands (wilderness). The policy statement makes clear that there are other purposes motivating the Act, for example, to designate selected wild lands “wilderness areas” and to create the National Wilderness Preservation System. But these purposes are secondary. The primary or fundamental purpose of the Act is to ensure for the American people the continuing benefits of wilderness.

It is interesting to point out that, according to the Act, wilderness is not preserved within the United States primarily for the sake of maintaining the health of these wild lands and preserving the plants and animals that dwell within them. The Act mandates the preservation of these lands in an unimpaired condition,²⁹ but this is primarily for the sake of the use and enjoyment of these lands by the American public. In the early 1960s the primary author of the Wilderness Act, Howard Zahniser, sought to convince the public and members of Congress to support passage of the Act by continually reminding them of the many benefits wilderness brings to people. Indeed, Zahniser emphasized that people in our society actually need wilderness.³⁰ Much unhappiness within our society, he believed, neuroses and other problems, can be traced to the stresses of modern civilization. Zahniser indicated deep appreciation for the benefits of modern civilization, but he strongly believed in the need

27. *Id.* at § 1131(a).

28. *Id.*

29. *Id.*

30. See Howard Zahniser, *The Need for Wilderness Areas*, in *WHERE WILDERNESS PRESERVATION BEGAN: ADIRONDACK WRITINGS OF HOWARD ZAHNISER* 59 (Edward Zahniser ed., 1992); see also MARK HARVEY, *WILDERNESS FOREVER: HOWARD ZAHNISER AND THE PATH TO THE WILDERNESS ACT* 67–68, 121, 146–48, 149–50, 251 (2005).

for a sense of the wild and primeval, the community of all living things, that only wilderness experience makes possible.³¹

The Wilderness Act goes on to specify the benefits wilderness areas must provide to the American public. “[W]ilderness areas shall be devoted,” the Act states, “to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”³² Clearly, wilderness areas are to be managed to provide *appropriate* recreational, scenic, scientific, and educational . . . uses. The Act defines wilderness in part as providing “outstanding opportunities for solitude or a primitive and unconfined type of recreation.”³³ Recreational uses appropriate to wilderness are (following the definition) those that are primitive and unconfined—that is, not dependent on roads or mechanical transport—and without evident management control or restrictions.³⁴ Wilderness is also defined as untrammelled, and as managed to retain its natural conditions.³⁵ As Hendee and Dawson discuss, scientific uses appropriate to wilderness include the study of generally undisturbed natural areas with unhindered natural processes.³⁶ According to the Wilderness Act, then, temporary roads, motor vehicles, motorized equipment, structures, etc., are allowed within a wilderness area when necessary to meet minimum requirements for administering (or managing) the area so it will provide the American public with appropriate recreational, scenic, scientific, educational, conservation, and historical uses. The Act does not give managers discretion to manage wilderness in a skewed (or slanted) way, e.g., by emphasizing just one or two of these uses at the cost of others. The Act requires that a wilderness area be managed in a holistic way, so to speak. Managers are to determine the *minimum* requirements for managing an area so it will provide *all* of these uses, including those that more tightly constrain what can be done, such as scientific, educational, and conservation uses.

As mentioned, the U.S. Forest Service and other federal agencies simply assert that trails are an “acceptable improvement” in wilderness. The Act’s exception clause allows the construction of trails (although not too many), bridges (again, not too many), wooden walkways, fireplaces, stock holding facilities, and other commonly used structures within wilderness areas. It makes much sense to say that properly placed trails are

31. *Id.*

32. 16 U.S.C. § 1133(b) (2006).

33. *Id.* at § 1131(c).

34. Hendee & Dawson, *supra* note 6, at 240.

35. 16 U.S.C. § 1131(c) (2006).

36. Hendee & Dawson, *supra* note 6, at 9–10. “Untrammelled” is best understood as free from deliberate human control or manipulations that would hinder natural processes. *See id.*

among the minimum requirements for managing a wilderness area so it will provide the public with appropriate recreational, scientific, educational, and other uses that depend on access. Hendee and Dawson believe that bridges are important in some situations for visitor safety.³⁷ It makes sense to say that properly placed bridges are among the minimum requirements for managing certain areas so they will provide the public with appropriate recreational, educational, and other uses. Trails and bridges compromise natural conditions to some extent, and they clearly impair the natural appearance of wilderness, yet they are vital for access. The Wilderness Act mandates managing wilderness areas “in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for . . . the preservation of their wilderness character”³⁸ Yet the exception clause allows trade-offs: some minimal and/or short-term impairment of wilderness, with losses of natural conditions, natural appearance, solitude, etc., for the sake of taking necessary actions to meet minimum requirements for appropriate public uses. The Act is overall highly idealistic and protective of wilderness, yet it includes this pragmatic component.

In his well-known legal analysis of the Wilderness Act, Michael McCloskey finds ambiguity within the exception clause.³⁹ He does not believe that “the purpose of this Act” unambiguously refers to a single purpose. He believes this expression may refer to the purpose “to secure for the American people . . . the benefits of an enduring resource of wilderness,” or it may refer to another purpose announced within the opening, policy section: to preserve designated wilderness areas without impairment. McCloskey apparently favors the view that “the purpose of this Act” refers to both purposes.⁴⁰ He recognizes, however, that the second purpose rests on the first, that the fundamental purpose of the Act is

37. Hendee & Dawson, *supra* note 6, at 479.

38. 16 U.S.C. § 1131(a) (2006). “Wilderness character” is properly interpreted as consisting of the defining qualities of wilderness: natural conditions, unhindered processes (untrammled), natural appearances, outstanding opportunities for solitude, etc. See Jerry F. Franklin & Gregory H. Aplet, *Wilderness Ecosystems*, in *WILDERNESS MANAGEMENT: STEWARDSHIP AND PROTECTION OF RESOURCES AND VALUES*, *supra* note 4, at 269–70.

39. Michael McCloskey, *The Wilderness Act of 1964: Its Background and Meaning*, 45 *OR. L. REV.* 288, 309–10 (1966).

40. McCloskey writes that if “the purpose of this Act” refers to “public enjoyment” (securing for the American people the benefits of enduring wilderness) as well as preservation without impairment, then managers are pressed to install “footbridges across impassible torrents,” and the exception clause would allow this. See *id.* The key to an exception is *necessity*, he writes, for satisfying these purposes. McCloskey is correct to stress necessity for an exception, but it should be made clear that a proposed action must be necessary for meeting minimum requirements for managing the area so it will provide appropriate (and required) wilderness uses: recreational, scientific, educational, etc.

to provide the American public with the benefits of enduring wilderness.⁴¹ Very likely, “the purpose of this Act” within the exception clause refers to this fundamental purpose. As mentioned above, the exception clause allows trade-offs: some losses of natural conditions and other wilderness qualities through placement of structures, use of motor vehicles, motorized equipment, construction of temporary roads, etc. Providing appropriate public uses is the “bottom line,” so to speak, the fundamental reason why wilderness has been preserved in the United States, and it is only for the sake of providing appropriate public benefits that the Act allows such compromising uses within wilderness.

II. BANDELIER NATIONAL MONUMENT

In Bandelier National Monument in New Mexico, the Park Service has proposed use of chain saws and other motorized equipment to remove piñon pines and junipers from wilderness areas in the park. The goal of the project is to restore native herbaceous vegetation and protect the soil from further erosion.⁴² According to the Environmental Impact Statement (EIS) for this project, many years of fire suppression have allowed fire-sensitive piñon and juniper trees to increase in number and expand their ranges, crowding out native grasses, herbs, and forbs.⁴³ Livestock grazing has also resulted in the loss of much of this herbaceous vegetation. Grazing ended in the 1940s,⁴⁴ but the exposed soil has been subjected to alarmingly high rates of erosion, and according to the Park Service much of the exposed soil is washing away.⁴⁵ The monument is dedicated to the preservation of archaeological sites. According to the Park Service, approximately 75 percent of the known prehistoric sites in the park lie within piñon-juniper woodlands, and approximately 90 percent of these sites have been damaged by erosion.⁴⁶ According to the

41. *Id.* at 309.

42. NAT'L PARK SERV., U.S. DEP'T OF THE INTERIOR, BANDELIER NATIONAL MONUMENT, DRAFT ECOLOGICAL RESTORATION PLAN AND ENVIRONMENTAL IMPACT STATEMENT ii (2007), <http://parkplanning.nps.gov/document.cfm?parkID=27&projectID=10977&documentID=17655> (follow “Ecological Resoration Plan and DEIS” hyperlink) [hereinafter BANDELIER DEIS].

43. *Id.*

44. Peter B. Landres et al., *Naturalness and Wildness, the Dilemma and Irony of Managing Wilderness*, in WILDERNESS SCIENCE IN A TIME OF CHANGE CONFERENCE—VOLUME 5: WILDERNESS ECOSYSTEMS, THREATS, AND MANAGEMENT 377, 380 (David N. Cole et al. eds. 2000), available at http://www.fs.fed.us/rm/pubs/rmrs_p015_5.pdf.

45. BANDELIER DEIS, *supra* note 42, at ii; see also NAT'L PARK SERV., U.S. DEP'T OF THE INTERIOR, BANDELIER NATIONAL MONUMENT, ECOSYSTEM RESTORATION PLAN RECORD OF DECISION 6 (2007), <http://parkplanning.nps.gov/document.cfm?parkID=27&projectID=10977&documentID=20655> (follow “Signed ROD 9.18.07” hyperlink) [hereinafter BANDELIER ROD].

46. BANDELIER DEIS, *supra* note 42, at ii.

agency, natural processes are not effectively restoring the herbaceous vegetation. One problem is that, lacking such vegetation, these areas are unable to support the frequent, low-intensity fires that would naturally limit the distributions of piñons and junipers and encourage the growth of grasses and forbs.⁴⁷ Efforts to reseed these areas have reportedly been unsuccessful.⁴⁸ Managers have proposed the use of chain saws to remove piñons and junipers from approximately 4,000 acres of the monument.⁴⁹ Cut branches and tree trunks will be scattered across the ground in denuded areas in an effort to stabilize the soil and allow grasses and other herbaceous vegetation to take hold. Based on experience in other areas, this is considered a “proven treatment.”⁵⁰ Helicopters will be used to support the crews working in remote areas.⁵¹ Once herbaceous vegetation has been established, the agency will consider use of human-induced fire to mimic a natural fire regime and maintain more natural species distributions.⁵²

This project will, of course, represent much human influence in wilderness. These areas will not be restored to genuinely natural conditions.⁵³ Managers will impose upon these areas their beliefs concerning what constitutes a natural fire regime, natural erosion rates, historical species distributions, etc. The piñon-juniper woodlands will be shaped in accordance with a human design. The agency properly claims that these areas will be restored to “a more naturally functioning state” (rather than to a naturally functioning state).⁵⁴ This project will significantly compromise natural appearance. The chain saws, helicopters, and work crews will be highly noticeable evidence of human activity, as will the stumps and scattered trees and branches. The agency acknowledges that it will take approximately 15 to 20 years for successful revegetation and signs of human influence to fade.⁵⁵

The Wilderness Act generally prohibits use of chain saws and helicopters in wilderness areas.⁵⁶ The agency is relying upon Park Service policy allowing exceptions. According to the agency’s *Management*

47. *Id.* at vii.

48. *Id.* at vi; see also BANDELIER ROD, *supra* note 45, at 4.

49. The monument totals approximately 34,000 acres. BANDELIER DEIS, *supra* note 42, at i.

50. BANDELIER ROD, *supra* note 45, at 2.

51. BANDELIER DEIS, *supra* note 42, at v.

52. BANDELIER ROD, *supra* note 45, at 3.

53. The National Park Service characterizes “natural condition” as an “absence of human dominance over the landscape.” NAT’L PARK SERV., *supra* note 19, at 36. A similar characterization (formulated by this author) is “generally free of human influence.”

54. BANDELIER DEIS, *supra* note 42, at i.

55. *Id.* at i, xiii.

56. See 16 U.S.C. § 1133(c) (2006).

Policies, motorized equipment or mechanical transport may be used within a wilderness area when such use is determined to be (again) “the minimum requirement needed by management to achieve the purposes of the area, including the preservation of wilderness character and values, in accordance with the Wilderness Act.”⁵⁷ This policy is quite weak. As mentioned, managers are required to evaluate impacts upon a number of wilderness qualities: natural conditions (including the lack of human-generated noise), solitude, opportunities for primitive recreation, etc.⁵⁸ The Park Service properly provides such an evaluation within the EIS for the Bandelier restoration project.⁵⁹ Under its policies, this is all the agency is required to do. Managers have much discretion in determining “the purposes of the area” and balancing these with preservation of wilderness qualities. The result may be management that is skewed toward one use, with significant impairment of wilderness resources.

Yet, perhaps surprisingly given its extent, the proposed Bandelier restoration project in fact satisfies the Act’s requirement for an exception. The EIS for this project supports the claim that the proposed action (removing piñons and junipers and scattering the “slash” across denuded areas) is necessary to meet minimum requirements for managing this area so it will provide the public with appropriate recreational, scenic, scientific, educational, conservation, and historical uses. It makes much sense to say that stable soil is among the minimum requirements for managing this area for such uses, especially scientific, educational, conservation, and historical. The EIS reports significant soil losses from erosion.⁶⁰ Again, the vast majority of prehistoric archaeological sites lie within the piñon-juniper woodlands, and approximately 90 percent of these have been damaged by erosion.⁶¹ The agency has attempted to solve the erosion problem in other ways, for example, by reseeding the bare areas. But what is required (the agency has found) is this proven method of stabilizing the exposed soil so that herbaceous vegetation can grow. The project will take approximately five years to complete.⁶² According to the EIS, the agency will minimize impacts, for example, by avoiding nesting areas of sensitive birds such as peregrine falcons.⁶³

57. NAT’L PARK SERV., *supra* note 19, at 82.

58. *Id.* at 81.

59. BANDELIER DEIS, *supra* note 42, at xiv–xv.

60. *Id.* at ii; *see also* BANDELIER ROD, *supra* note 45, at 6.

61. BANDELIER DEIS, *supra* note 42, at ii.

62. *Id.* at viii, x.

63. *See id.* at xvi–xviii.

III. CUMBERLAND ISLAND

In contrast, the National Park Service did not satisfy the Act's exception clause when it engaged in transporting tourists by van through a wilderness area on Cumberland Island, off the coast of Georgia. As described in *Wilderness Watch, Inc. v. Mainella*, the agency used a 15-person passenger van to transport tourists through a wilderness area to historic sites located just outside the wilderness boundary but inside Park Service lands.⁶⁴ Wilderness Watch (a nonprofit conservation organization) and others filed a legal complaint, claiming that the agency was violating the Wilderness Act's prohibition of the use of motor vehicles.⁶⁵ The historic sites are listed on the National Register of Historic Places, and the Park Service claimed a separate legal obligation to "restore, maintain, preserve and curate the historic resources . . . and permit visitor access . . ."⁶⁶ Furthermore, the land on which the historic sites are located was under study for wilderness designation, and the agency claimed that it was obligated under the Wilderness Act to manage the area as though it were a designated wilderness area, for "recreational, scenic, scientific, educational, conservation, and historical use."⁶⁷ As discussed above, Park Service policy concerning use of motorized equipment and mechanical transport in wilderness gives managers much discretion in determining "the purposes of the area" and in balancing these against impacts to wilderness qualities. In its own evaluation of its practice, the Park Service expressed concerns with possible harm to the wilderness experiences of visitors to the area.⁶⁸ Yet the agency concluded that its use of a large passenger van in the wilderness area was (following policy language) the minimum requirement needed by management to achieve the purposes of the area, including the preservation of wilderness character and values.⁶⁹

It is fairly clear, however, that this practice represents management that is skewed toward one use of a wilderness area—historical—at the cost of other uses, especially primitive recreation. The case was appealed to the Eleventh Circuit, which ruled that the agency was in violation of the Wilderness Act.⁷⁰ In the court's opinion, Judge Barkett quotes the Act's exception clause and writes, "[i]n no ordinary sense of the

64. 375 F.3d 1085, 1088–90 (11th Cir. 2004). Cumberland Island was designated a National Seashore by Congress in 1972. *Id.* at 1088.

65. *Id.* at 1090.

66. *Id.* at 1089.

67. *Id.* at 1090.

68. *Wilderness Watch, Inc.*, 375 F.3d at 1093.

69. *See id.* at 1093–94.

70. *Id.* at 1094, 1096.

word” can use of a 15-passenger van be considered “‘necessary’ to administer the area for the purpose of the Wilderness Act.”⁷¹ The judge also writes that, “the acquisition and use of a large passenger van for transporting tourists cannot reasonably be squeezed into the phrase ‘necessary to meet minimum requirements’ of administration.”⁷² The court was essentially saying to the agency: You have legal responsibilities that go well beyond managing these historic sites. The court indicated special concern with the quality of primitive recreation in the area.⁷³ The agency practice compromised solitude and other wilderness resources. The court did not agree that the transport of tourists by large passenger van was necessary to meet *minimum* requirements for managing this area for “the purpose of the Act,” which is (the court clearly implies) to ensure the provision of a wide range of appropriate public uses, including primitive recreation.⁷⁴ The court’s decision in this case supports this article’s interpretation of the Act’s exception clause. The Act’s exception clause, properly interpreted, rules out such skewed management.

IV. THE KOFA WILDERNESS AREA

As mentioned above, the U.S. Fish and Wildlife Service has approved the construction of watering facilities (“guzzlers”) for desert bighorn sheep in the Kofa Wilderness area in Arizona. According to an investigative report on the Kofa bighorn sheep herd, the population of sheep within this area has declined by about 50 percent, down from its previous, long-term level of approximately 800 sheep.⁷⁵ It is believed that the decline is a response to several factors, including drought and predation.⁷⁶ The goal of the project is to increase the number of sheep to 800.⁷⁷ According to the investigative report, the proposed watering facilities will not be readily observable to wilderness visitors.⁷⁸ Rainwater is collected by low-profile concrete structures hidden in nearby washes, and will be shunted through buried pipes to underground storage tanks.⁷⁹ This area is also a national wildlife refuge with a long history of provid-

71. *Id.* at 1092.

72. *Id.* at 1093.

73. *Wilderness Watch, Inc.*, 375 F.3d at 1093.

74. *See id.*

75. KOFA NAT’L WILDLIFE REFUGE & ARIZONA GAME AND FISH DEPT., INVESTIGATIVE REPORT AND RECOMMENDATIONS FOR THE KOFA BIGHORN SHEEP HERD 4 (2007), http://www.azgfd.gov/pdfs/w_c/bhsheep/Investigative%20Report%2004-17-2007.pdf.

76. *Id.* at 7–14.

77. *Id.* at 14.

78. *See id.* at 9.

79. *Wilderness Watch, Inc. v. U.S. Fish and Wildlife Serv.*, No. CV-07-1185-PHX-MHM, 2008 WL 4183040, 2 (D. Ariz. Sept. 8, 2008).

ing water to native bighorn sheep by use of water tanks serviced by trucks and helicopters.⁸⁰ The Fish and Wildlife Service has also proposed limited hunting of mountain lions in the area in an effort to alleviate predation impacts on the sheep population.⁸¹

Wilderness Watch and others filed a legal complaint, charging the Fish and Wildlife Service with violations of the Wilderness Act and the National Environmental Policy Act.⁸² In their complaint, the plaintiffs claimed that the project significantly compromises natural conditions and will result in loss of wilderness character.⁸³ The plaintiffs expressed concern that the permanent availability of water will affect the movements of the sheep and draw more mountain lions to the area, increasing predation on the sheep.⁸⁴ Also, the plaintiffs correctly pointed out that the Wilderness Act prohibits structures and the use of motor vehicles and motorized equipment in a wilderness area.⁸⁵

In response, the Fish and Wildlife Service relied on the Act's exception clause. The agency claimed that Congress "gave agencies the ability to maintain structures when necessary to meet the minimum requirements for the administration of efforts to conserve wildlife resources of the lands."⁸⁶ This was an awkward attempt to mimic (more or less) the language of the Act's exception clause, but this interpretation of the exception clause is far too narrow. The Act's exception clause states that an action must be necessary to meet minimum requirements for managing an area so it provides a wide array of required wilderness uses, not only conservation of wildlife but also recreational, scientific, educational, and other uses specified within the Act. The Fish and Wildlife Service's official policies allow motor vehicles and other generally prohibited uses within a wilderness area when they are (again) "the minimum requirement for administering the area as wilderness and are necessary to accomplish the purposes of the refuge, including Wilderness Act purposes."⁸⁷ Managers are required only to *consider* impacts on natural conditions, solitude, opportunities for primitive recreation, and other

80. KOFA NAT'L WILDLIFE REFUGE & ARIZONA GAME AND FISH DEPT., *supra* note 75, at 4, 8–10.

81. *Id.* at 13–14; *see also* U.S. FISH AND WILDLIFE SERV., ENVIRONMENTAL ASSESSMENT: OPENING OF MOUNTAIN LION HUNTING ON KOFA NATIONAL WILDLIFE REFUGE (2006) <http://www.fws.gov/southwest/refuges/arizona/kofahuntplan.pdf>.

82. *Wilderness Watch, Inc. v. U.S. Fish and Wildlife Serv.*, No. CV-07-1185-PHX-MHM, 2008 WL 4183040, 1 (D. Ariz. Sept. 8, 2008).

83. *Id.* at 5, 13.

84. *Id.* at 13–14.

85. *Id.* at 1, 9, 15, 19.

86. *Id.* at 9.

87. PART 610 WILDERNESS STEWARDSHIP, *supra* note 23, at 1.16(B).

wilderness qualities as they balance refuge purposes—in this case, production of bighorn sheep—with preservation of these qualities.⁸⁸ This is too weak.

The investigative report on the Kofa bighorn sheep herd revealed that this population has varied widely in numbers through the years. According to the report, the recent decline “may not be unprecedented.”⁸⁹ Population numbers were low through the 1960s and early 1970s, the report states.⁹⁰ Between 1970 and 1978, the population was estimated at 200 to 375 sheep.⁹¹ It is likely that the recent decline in numbers, down to about 400 sheep, is at least in part a natural response to drought. The present population may be healthy and would increase naturally as the drought eases. As the report made clear, the targeted number of sheep, 800, is considered necessary for the state wildlife agency’s transplanting program.⁹² Also, bighorn sheep hunting is extremely popular in this wilderness area, and the hunting permit fees bring in significant revenue.⁹³ But surely such an artificially inflated population would have a greater impact on available forage and on predators in the area. Scientific, educational, and broad conservation uses would be compromised. Moreover, the watering facilities are somewhat noticeable to wilderness visitors,⁹⁴ as would be future efforts to maintain the facilities, and so would impair to some extent scenic and recreational uses of the area. The Fish and Wildlife Service has not satisfied the Wilderness Act’s exception clause, properly interpreted. The targeted number of sheep (800) cannot reasonably be considered among the *minimum* requirements for managing this area so it will provide the public with the wide array of required wilderness uses. The present smaller population, which apparently better fits current environmental conditions, would better allow the agency to manage for this wide array of uses—especially scientific, educational, and conservation—and would likely not require construction of new watering facilities and the elimination of mountain lions. This project represents wilderness management

88. *Id.* at 1.18.

89. KOFA NAT’L WILDLIFE REFUGE & ARIZONA GAME AND FISH DEPT., *supra* note 75, at 6.

90. *Id.*

91. *Id.*

92. *See id.* at 18–19. The state wildlife agency considers this population “the most likely source” of transplants for meeting the “high demand” for sheep of this subspecies. *Id.*

93. KOFA NAT’L WILDLIFE REFUGE & ARIZONA GAME AND FISH DEPT., *supra* note 75, at 19.

94. *See id.* at 30 photo; *see also* David Mattson, *Wildlife in Wilderness: A North American and International Perspective*, in WILDERNESS MANAGEMENT: STEWARDSHIP AND PROTECTION OF RESOURCES AND VALUES 321, 330, 358 photos (John C. Hendee & Chad P. Dawson eds., 2002).

that is skewed (or slanted) toward maximum production of bighorn sheep at the cost of scientific, educational, broad conservation, and other uses.

The federal district court decided in favor of the Fish and Wildlife Service. In the order issued by the court, the judge declared that the agency's decision to construct the watering facilities was owed deference.⁹⁵ On appeal, however, the Ninth Circuit reversed the lower court's ruling.⁹⁶ The majority on the Ninth Circuit determined that the agency did not satisfy the Wilderness Act's exception clause.⁹⁷ Unfortunately, the majority adopted a narrow and incorrect interpretation of the exception clause. According to the majority, the agency must demonstrate that the proposed action is "necessary to meet minimum requirements of a 'purpose' of the Wilderness Act."⁹⁸ The majority deferred to the agency's view that conserving bighorn sheep is a purpose of the Act.⁹⁹ Yet the majority believed that the agency did not demonstrate that construction of new watering facilities is necessary to increase the population of sheep to the targeted number (800).¹⁰⁰ The majority on the Ninth Circuit agreed with the plaintiffs that the project is in violation of the Wilderness Act,¹⁰¹ although the majority's interpretation of the Act's exception clause is far too narrow. Neither court asked the agency the critical question: why 800 sheep? Neither court held the agency responsible for satisfying the minimum requirements for providing the full array of public uses specified by the Wilderness Act.

V. CONCLUSION: LIMITS ON THE CULTIVATION OF WILDERNESS

Even though the Wilderness Act's exception clause plays a critical role in the management of wilderness, there is no standard interpretation of it. It has been interpreted in a variety of ways. As mentioned earlier, Hendee and Dawson interpret this clause as allowing an action that involves generally prohibited uses when such an action is the "minimum

95. See *Wilderness Watch, Inc. v. U.S. Fish and Wildlife Serv.*, No. CV-07-1185-PHX-MHM, 2008 WL 4183040, at 15–16 (D. Ariz. Sept. 8, 2008).

96. *Wilderness Watch, Inc. v. U.S. Fish and Wildlife Serv.*, 629 F.3d 1024 (9th Cir. 2010).

97. *Id.* at 1037.

98. *Id.* at 1032.

99. *Id.* at 1033.

100. According to the majority, the Fish and Wildlife Service did not show that this goal cannot be reached through other means identified by the agency as potentially effective, such as cessation of the sheep transplanting program. See *id.* at 1039–40.

101. *Id.* at 1040.

necessary for managing the area as wilderness.”¹⁰² Federal agencies with responsibilities for managing wilderness areas have adopted similarly vague interpretations. As mentioned, the *Forest Service Manual* allows the use of motorized equipment and mechanical transport “[to] meet minimum needs for protection and administration of the area as wilderness”¹⁰³ What does this mean precisely? This and other federal agency interpretations have been modeled (more or less) on the original wording within the Act—“as necessary to meet minimum requirements for the administration of the area for the purpose of this [Act]”¹⁰⁴—but the wording within the Act refers to a specific purpose that constrains the exceptions allowed under the Act, and this reference has been lost in the various interpretations.

As discussed, the purpose of this Act is indicated within the opening, policy section of the Act: “to secure for the American people . . . the benefits of an enduring resource of wilderness.”¹⁰⁵ Within the Act, Congress clearly specified the benefits wilderness is to provide to the American people. “[W]ilderness areas shall be devoted,” the Act states, “to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.”¹⁰⁶ According to the Act, temporary roads, motor vehicles, motorized equipment, structures, etc., are allowed within a wilderness area when necessary to meet what can be called (for convenience) the “minimum management requirements” for the area, understood as the minimum requirements for managing the area so it will provide the American public with appropriate recreational, scenic, and other required uses. As is the case in the Kofa Wilderness area, scientific, educational, and conservation uses will typically be the more restrictive on what can be done, since they are especially dependent upon natural conditions with unhindered natural processes (untrammelled). Perhaps surprisingly, even extensive manipulations of wilderness—for example, removing trees with chain saws and scattering the “slash” across the area—may be allowed if it can be demonstrated that the action meets this requirement for an exception. But the exception clause limits manipulations of wilderness. Actions that reflect management skewed toward one use—for example, the production of bighorn sheep—at the expense of other required uses are not allowed. The Act’s exception clause, properly interpreted, helps ensure properly balanced wilderness

102. Hendee & Dawson, *supra* note 6, at 112.

103. U.S. FOREST SERV., *supra* note 7, at 53.

104. 16 U.S.C. § 1133(c) (2006).

105. *Id.* § 1131(a).

106. *Id.* § 1133(b).

management and provides a useful standard for review by citizens and the courts.

Finally, philosopher Mark Sagoff has written that to be truly part of nature, a landscape must be sufficiently vested with feelings within our society. A landscape must be “cultivated,” he claims, that is, altered or modified by humans to meet human needs.¹⁰⁷ He offers as an example the Mississippi River, which has been modified by humans (the building of ships and docks, removal of rocks and sandbars, etc.) to meet our nation’s economic needs.¹⁰⁸ According to Sagoff, it is through such alteration, and the influence the river has had upon the lives of those who interact with it (as expressed in the stories of Mark Twain), that has made the Mississippi much loved within American society and so truly part of nature.¹⁰⁹ To be part of nature, Sagoff claims, a landscape must be deeply experienced and claimed by feelings. Nature must function “as a center of felt value because human needs, cultural and social as well as biological, are satisfied in it.”¹¹⁰ We must “come[] to terms with nature,” Sagoff writes.¹¹¹

As is true of the Mississippi River, Yellowstone National Park, the Mount Rushmore National Memorial area, and other famous natural areas, many federally designated wilderness areas are much loved within the United States. The John Muir and the San Geronio Wilderness areas in California, for example, are extremely popular.¹¹² It is fair to say that wilderness areas are so loved within our society in large part because they have been cultivated, modified in special ways to meet human needs. The construction of trails, bridges, wooden walkways, campgrounds, fireplaces, stock holding facilities, etc., within wilderness areas serves to meet needs within our society for primitive recreation and quiet reflection in nature, and certainly counts as “cultivation” in Sagoff’s sense. Wilderness areas are loved *as* wilderness precisely for their appropriate, minimal level of development and the special uses they provide. Wilderness areas are not to be developed to the levels appropriate for other types of lands such as national parks (the non-wilderness areas of the parks), with roads, lodges, cabins, restaurants, souvenir shops, paved walkways, etc. Wilderness areas are not to be developed to the levels found in city parks, golf courses, or Disneyland. Within American society, we value a wide variety of landscapes, from those that are

107. MARK SAGOFF, *THE ECONOMY OF THE EARTH* 162–66 (2nd ed. 2008).

108. *Id.* at 165–67.

109. *Id.*

110. *Id.* at 166.

111. *Id.*

112. Hendee & Dawson, *supra* note 6, at 14–15, 32, 44.

highly developed to those maintained in a more primitive state (“the paved to the primeval”).¹¹³ Fortunately, the United States spans a very large and diverse geographical area, allowing us to set aside lands dedicated to different purposes. The exception clause within the Wilderness Act, properly interpreted, allows wilderness areas to be cultivated in appropriate ways, with trails, bridges, campgrounds, etc., yet also sets limits on the cultivation of these areas.

113. *Id.* at 191.

