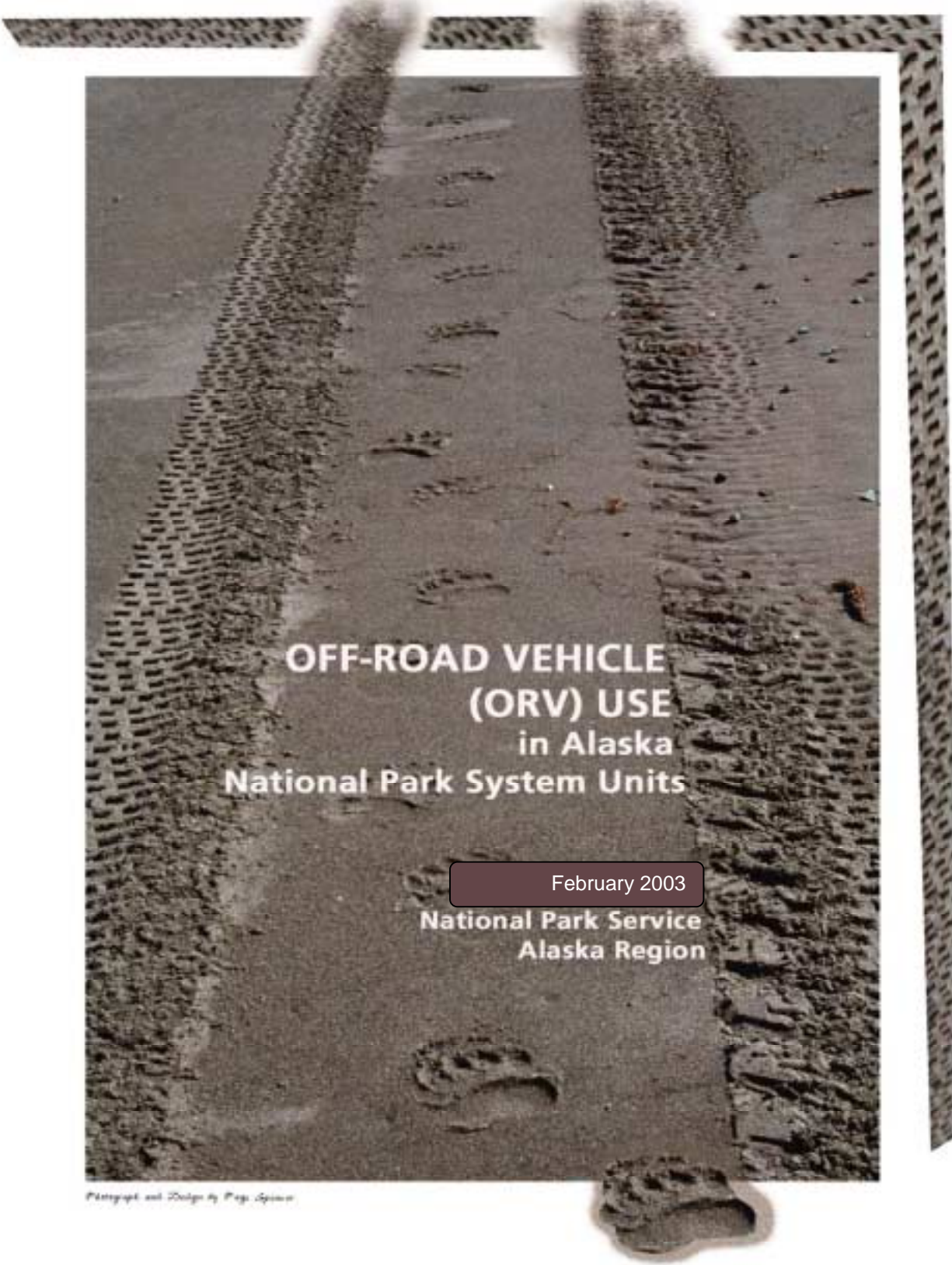




U.S. Department of the Interior
National Park Service
Alaska Region



**OFF-ROAD VEHICLE
(ORV) USE
in Alaska
National Park System Units**

February 2003

**National Park Service
Alaska Region**

Photograph and Design by Peter Spence

The National Park Service cares for special places saved by the American people
so that all may experience our heritage.

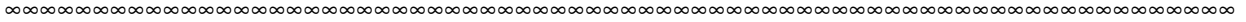
EXPERIENCE YOUR AMERICA

The National Park Service, Alaska Support Office, provided publication services.
Mention by the U.S. Department of the Interior National Park Service of trade names or commercial products does not
constitute endorsement or recommendation for use.

oo

Contents

Foreword	i
Summary	i
Introduction	1
I. Statutes, Regulations, and Policies Governing ORV Use in Alaska National Park Units	3
II. Current Status of ORV Use in Alaska National Park Units	16
III. Research on ORV Uses, Users, and Impacts	18
IV. Task Force Findings	22
V. Action Plan	23
ORV Research Bibliography	24



exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.”⁵ In order to carry out these mandates, section 3 authorizes the Secretary of Interior to promulgate regulations “as he may deem necessary or proper for the use and management” park areas.⁶

If challenged in court, NPS regulations interpreting statutes it is charged with implementing are entitled to deference.⁷ The court's review is a two-step process.⁸ First, the court asks whether Congress has spoken to the issue at hand.⁹ If so, the inquiry ends there; the court must give effect to Congress’s direction.¹⁰ If the statute is ambiguous and the agency promulgates a regulation interpreting the provision, the court evaluates whether the agency’s interpretation is reasonable.¹¹ The court must defer to an agency’s interpretation so long as it is reasonable.¹²

Where Congress has not specifically authorized ORV use, the NPS “is empowered with the authority to determine what uses of park resources are proper and what proportion of the park’s resources are available for each use.”¹³ In absence of specific Congressional direction to the contrary, NPS regulations allowing or prohibiting ORVs are entitled to deference.

II. HOW THE NPS HAS EXERCISED ORGANIC ACT AUTHORITY WITH RESPECT TO ORVs: A CHRONOLOGICAL OVERVIEW AND LEGAL ANALYSIS OF EXECUTIVE ORDER 11644, 36 C.F.R. § 4.10, AND 43 C.F.R. § 36.11(G).

In 1972, President Nixon signed E.O. 11644.¹⁴ The E.O. recognized ORV use conflicts with "wise land and resource management practices, environmental values, and other types of

⁵ 16 U.S.C.A. § 1a-1 (West 2000).

⁶ 16 U.S.C.A. § 3 (West 2000).

⁷ *U.S. v. Mead Corp.*, 121 S.Ct. 2164, 2171-72 (2001).

⁸ Agency interpretations of statutes made through policy statements, agency manuals, enforcement guidelines, or opinion letters receive less deference than regulations. *Christensen v. Harris County*, 529 U.S. 576, 587 (2000). This lesser form of deference is commonly referred to as "Skidmore" deference. *Skidmore et al. v. Swift Co.*, 323 U.S. 134 (1944). Interpretations found in such sources are entitled to respect and considered persuasive, but not binding on the reviewing court. *Id.* Interpretations that have not been formally adopted, including interpretations formed in litigation or draft policies, receive little or no deference. *See Bowen v. Georgetown Univ. Hospital*, 488 U.S. 204, 212-213 (1988); *Dabney*, 222 F.3d at 829. Agencies are also entitled to deference when interpreting its own regulations. *See Udall v. Tallman*, 380 U.S. 1, 16-18 (1965). The rule governing deference for regulatory interpretation is a two-step process mirroring the standard discussed in this Part. *Id.*

⁹ *Chevron U.S.A. Inc. v. Natural Resources Defense Council*, 487 U.S. 837, 842 (1984).

¹⁰ *Id.* at 842-43.

¹¹ *Id.* at 843, 844.

¹² *Id.*

¹³ *Bicycle Trails Council of Marin*, 82 F.3d at 1454 (citing *Wilderness Public Rights Fund*, 608 F.2d at 1253).

¹⁴ Exec. Order No. 11644, 37 Fed. Reg. 2877 (Feb. 8, 1972), amended by Exec. Order No. 11989, 42 Fed. Reg. 26959 (May 24, 1977) and Exec. Order No. 12608, 52 F.R. 34617 (Sept. 9, 1987), reprinted as amended in the notes following 42 U.S.C.A. § 4231 (West 1994) (42 U.S.C. § 4231 was repealed in 1982). E.O. 11989 added section 9 to the original order. Section 9(a) requires agencies to close areas to ORV use if it will cause or is causing "considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources." Section 9(b) authorizes agencies to close areas to ORV use that have not been designated in accordance with section 3 of the E.O. E.O. 12608 changed an internal reference in the original E.O. from "Atomic Energy Commission" to the "Secretary of Energy and the Nuclear Regulatory Commission."

recreational activity[.]”¹⁵ The purpose of the E.O. was to establish policies and procedures on the use of ORVs to ensure resource protection, visitor safety, and minimize user conflict.¹⁶ The E.O. defined an ORV as any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland or other natural terrain.¹⁷ The definition, however, explicitly excluded ORVs authorized by permit, license, lease, or contract.¹⁸

To effect its purpose, section 3 of the E.O. directed federal agencies to promulgate regulations that establish procedures for designating areas and trails for ORV use that achieve the E.O.'s stated purpose.¹⁹ Under authority delegated by Congress in the Organic Act, the NPS implemented this requirement in 36 C.F.R. § 4.19 in 1974.²⁰ In 1987, the NPS amended section 4.19 and re-codified it as section 4.10.²¹ Subsection (a) of this provision prohibits the use of ORVs except on roads, parking areas, and designated routes and areas.²² Subsection (b) reads:²³

Routes and areas designated for off-road motor vehicle use shall be promulgated as special regulations. The designation of routes and areas shall comply with 1.5 of this chapter and E.O. 11644 (37 FR 2887). Routes and areas may be designated only in national recreation areas, national seashores, national lakeshores and national preserves.

36 C.F.R. § 4.10(b) has two effects for Alaska park areas: 1) routes and areas can only be designated in national preserves; and 2) designation of routes or areas must be accomplished by promulgation of a special park regulation.²⁴ This provision is summarized in the table in Appendix A.

Section 3 of the E.O. also requires the designations made pursuant to the agency regulations (§ 4.10(b) for the NPS) to meet the following criteria:²⁵

- 1) "Areas and trails shall be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands."
- 2) "Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitat."
- 3) "Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors."

¹⁵ Excerpt from the introductory paragraph of the E.O.

¹⁶ E.O. § 1.

¹⁷ E.O. § 2(3).

¹⁸ E.O. § 2(3).

¹⁹ E.O. § 3(a).

²⁰ Travel on Roads and Designated Routes, 39 Fed. Reg. 11822 (Apr. 1, 1974) (to be codified at 36 C.F.R. § 4.19) (recodified at 36 C.F.R. § 4.10).

²¹ Travel on Roads and Designated Routes, 52 Fed. Reg. 10670, 10672-73 (Apr. 2, 1987).

²² Travel on Roads and Designated Routes, 36 C.F.R. § 4.10(a) (2001).

²³ Travel on Roads and Designated Routes, 36 C.F.R. § 4.10(b) (2001).

²⁴ Travel on Roads and Designated Routes, 36 C.F.R. § 4.10(b) (2001).

²⁵ E.O. § 3(a)-(b).

wilderness, upon a finding of compatibility.³² As previously mentioned, ORVs by permit are not subject to the E.O.³³ This authorization is summarized in the table in Appendix A.

The NPS and DOI determined that 36 C.F.R. § 4.10 was too restrictive for Alaska.³⁴ In 1981 when NPS proposed access regulations for the new Alaska park areas, the NPS stated that "[the proposed access regulations] are necessary to meet the special needs in Alaska for reasonable access across largely undeveloped park lands."³⁵ DOI stated in the preamble to the final regulation in 1986 that "Interior believes that [this] regulation of ORVs in areas provides the proper balance between adequate ORV use and protection of the purposes and values for which the areas were established [and] the maximum ORV use allowable under current law."³⁶ While the NPS and DOI regulations limited the ORV authorization to existing trails, both entities intended that any *new* trails systems be designated in accordance with the E.O. and the agency's implementing regulation (for the NPS, 36 C.F.R. § 4.10(b)).³⁷

In summary, while the NPS has exercised authority granted by the Organic Act to generally prohibit ORV use in park areas, current regulations permit the general use of ORVs under two separate regulatory provisions: 1) section 4.10(b) of 36 C.F.R. which allows Alaska park superintendents to designate routes and areas in non-wilderness national preserves pursuant to a special regulation after considering the impacts discussed in section 3 of E.O. 11644; and 2) 43 C.F.R. § 36.11(g) which allows superintendents to issue permits for ORVs on existing ORV trails, but not in wilderness, upon determining such use is compatible with park purposes.³⁸ Both provisions must be implemented consistent with the Organic Act non-impairment standard since the Organic Act is the statutory source of authority for both regulations.³⁹

III. ANILCA MODIFIES NPS DISCRETION UNDER THE ORGANIC ACT BY AUTHORIZING ORV USE FOR SUBSISTENCE, COMMERCIAL FISHING IN THREE PARK AREAS, ACCESS TO INHOLDINGS, REINDEER GRAZING IN BERING LAND BRIDGE, AND TEMPORARY ACCESS.

While NPS has exercised discretion under the Organic Act to generally prohibit ORVs, ANILCA specifically authorized ORVs in certain circumstances.⁴⁰ First, Congress authorized

³² Off-Road Vehicles, 43 C.F.R. § 36.11(g)(2) (2001).

³³ E.O. § 2(3).

³⁴ See Transportation and Utility Systems in and Across, and Access Into, Conservation System Units in Alaska, 51 Fed. Reg. at 31626 (Sept. 4, 1986); National Park System Units in Alaska, Off-Road Vehicles, 46 Fed. Reg. at 5644 (proposed Jan. 19, 1981) (to be codified at 36 C.F.R. § 13.14) (repealed 1986).

³⁵ National Park System Units in Alaska, Off-Road Vehicles, 46 Fed. Reg. at 5644 (proposed Jan. 19, 1981) (to be codified at 36 C.F.R. § 13.14) (repealed 1986).

³⁶ Transportation and Utility Systems in and Across, and Access Into, Conservation System Units in Alaska, Off-Road Vehicles, 51 Fed. Reg. at 31626 (Sept. 4, 1986).

³⁷ Transportation and Utility Systems in and Across, and Access Into, Conservation System Units in Alaska, Off-Road Vehicles, 51 Fed. Reg. at 31626; National Park System Units in Alaska, 46 Fed. Reg. at 31844 (June 17, 1981).

³⁸ Travel on Park Roads and Designated Routes, 36 C.F.R. § 4.10(b) (2001); Off-Road Vehicles, 43 C.F.R. § 36.11(g)(1)-(2) (2001).

³⁹ 16 U.S.C.A. § 3 (West 1994).

⁴⁰ In 1985, Congress granted two trail easements to Nana Regional Corporation in Cape Krusenstern National

significantly impairs the values and purposes for which the unit was established.⁵⁰ This provision is summarized in the table in Appendix A.

Section 1110(b) of ANILCA provides that "[n]otwithstanding any other provision of this Act or other law, in any case in which State owned or privately owned land, including subsurface rights of such owners underlying public lands, or a valid mining claim or other valid occupancy is within or is effectively surrounded by one or more conservation system units...the State or private owner or occupier shall be given by the Secretary such rights as may be necessary to assure adequate and feasible access for economic and other purposes to the concerned land by such State or private owner or occupier and their successors in interest. Such rights shall be subject to reasonable regulations issued by the Secretary to protect the natural and other values of such lands."⁵¹ This provision ensures adequate and feasible access to inholdings notwithstanding the NPS Organic Act or Wilderness Act.⁵² DOI has implemented this provision in 43 C.F.R. § 36.10, which establishes a process for granting a right-of-way permit.

Section 1111 provides that "[n]otwithstanding any other provision of this Act or other law the Secretary shall authorize and permit temporary access by the State or a private landowner to or across any conservation system unit...in order to permit the State or private landowner access to its land for purposes of survey, geophysical, exploratory, or other temporary uses thereof whenever he determines such access will not result in permanent harm to the resources of such unit...."⁵³ As opposed to section 1110(b) which provides access for inholders, this section authorizes state and private landowners whose land is not necessarily surrounded by a CSU temporary access "to or across" a CSU.⁵⁴ This section permits temporary access via motorized or mechanized means in wilderness so long as it does not permanently harm park areas.⁵⁵ DOI implemented this provision in 43 C.F.R. § 36.12.

Section 201(2) of ANILCA, which established Bering Land Bridge National Preserve, directed the Secretary to "continue reindeer grazing use, including necessary facilities and equipment...."⁵⁶ The NPS has interpreted this language to allow ORV use and implemented this interpretation in 36 C.F.R. § 13.61(a). Section 13.61(a) provides "[t]he use of off-road vehicles for purposes of reindeer grazing may be permitted in accordance with a permit issued by the Superintendent."

CONCLUSION

The NPS has generally prohibited the use of ORVs in park areas.⁵⁷ The regulations provide an exception to this general prohibition by allowing ORVs 1) on routes or in areas in

⁵⁰ Commercial fishing, 36 C.F.R. §§ 13.21(c)(1)-(2) (2001).

⁵¹ ANILCA § 1110(b), 16 U.S.C.A. § 3170(b) (West 2000).

⁵² ANILCA § 1110(b), 16 U.S.C.A. § 3170(b) (West 2000).

⁵³ ANILCA § 1111, 16 U.S.C.A. § 3171 (West 2000).

⁵⁴ ANILCA § 1111, 16 U.S.C.A. § 3171 (West 2000).

⁵⁵ ANILCA § 1111, 16 U.S.C.A. § 3171 (West 2000).

⁵⁶ 16 U.S.C.A. § 410hh(2) (West 2000).

⁵⁷ If Congress has not specifically authorized ORV use or an individual does not have a permit to operate an ORV on an existing trail, such use is prohibited under 36 C.F.R. § 4.10. Under 36 C.F.R. § 1.2(a)(3), this prohibition applies to lands within park boundaries below the ordinary high water mark regardless of ownership of the

preserve units pursuant to a special regulation, or 2) pursuant to a permit on existing ORV trails.⁵⁸ ORVs by permit are not subject to E.O. 11644.⁵⁹ The E.O. does not apply to ORV access authorized by ANILCA or on rights-of-way.

Should the NPS decide to allow ORVs in a preserve where an ORV trail does not currently exist, current regulations require that the NPS follow the designation process in 36 C.F.R. § 4.10(b) and consider the criteria specified in section 3 of the E.O.

When authorizing ORV use under 36 C.F.R. §§ 4.10, 13.61(a) (reindeer grazing); 43 C.F.R. § 36.11(g); and ANILCA §§ 811(b), 205, 1111, the NPS must implement the authorization consistent with the Organic Act.⁶⁰ ORVs may be allowed in wilderness only under ANILCA §§ 811(b), 1110(b), and 1111.⁶¹

submerged land. The regulation does not apply on other state or private lands.

⁵⁸ Travel on Roads and Designated Routes, 36 C.F.R. § 4.10(b) (2001); Off-Road Vehicles, 43 C.F.R. § 36.11(g) (neither provision allows ORVs in designated wilderness).

⁵⁹ E.O. § 2(3).

⁶⁰ Depending on the authorization, rights-of-way may modify the NPS Organic Act duty.

⁶¹ Depending on the authorization, ORVs on rights-of-way may be allowed in wilderness areas.

ORV USE IN ALASKA PARK AREAS*

	Designated Routes/Areas in Preserves	Permits for Existing Trails	Subsistence	ORV Use in Support of Commercial Fishing
Statutory and Regulatory Source of Authority	16 U.S.C.A. § 3, 36 C.F.R. § 4.10 (implements E.O. 11644). <i>See 39 Fed. Reg. 11822, 52 Fed. Reg. 10672-73.</i>	16 U.S.C.A. § 3, 43 C.F.R. § 36.11(g)(2).	ANILCA § 811(b), 36 C.F.R. § 13.46(a).	ANILCA § 205, 36 C.F.R. § 13.21(c).
Authorizing Language	36 C.F.R. § 4.10(a) "Operating a motor vehicle is prohibited except...on routes and areas designated for off-road motor vehicle use." (b) "Routes and areas designated for off-road motor vehicle use shall be promulgated as special regulations...Routes and areas may be designated only in national recreation areas, national seashores, national lakeshores and national preserves."	43 C.F.R. § 36.11(g)(1) "The use of off-road vehicles...is prohibited, except on routes or in areas designated by the appropriate Federal agency in accordance with Executive Order 11644... <i>or</i> pursuant to a valid permit...." (emphasis added) (2) "The appropriate Federal agency is authorized to issue permits for the use of ORVs on existing ORV trails located in areas (other than in areas designated as [wilderness]) upon a finding that such ORV use would be compatible with the purposes and values for which the area was established. The appropriate Federal agency shall include in any permit such stipulations and conditions as are necessary for the protection of those purposes and values."	811(b) "Notwithstanding any other provision of this Act or other law, the Secretary shall permit on the public lands appropriate use for subsistence purposes...means of surface transportation traditionally employed...subject to reasonable regulation." 36 C.F.R. § 13.46(a) "Notwithstanding any other provision of this chapter, the use of...surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas...."	ANILCA § 205 "With respect to the Cape Krusenstern National Monument, the Malaspina Forelands area of Wrangell-St. Elias National Preserve and the Dry Bay area of Glacier Bay National Preserve, the Secretary may take no action to restrict unreasonably [privileges associated with commercial fishing] including the use of ...motorized vehicles...except that this prohibition shall not apply to activities which the Secretary, after conducting a public hearing in the affected locality, finds constitute a significant expansion of the use of park lands beyond the level of such use during 1979." 36 C.F.R. § 13.21(c) implements section 205. Section 13.21(c) is not quoted here, but criteria specified in 13.21(c) for allowing or restricting ORV use associated with commercial fishing are discussed below.
Criteria for Allowing ORV Use	<ul style="list-style-type: none"> ▪ Designation requires a special regulation ▪ Preserves only--not allowed in parks, monuments, or wilderness ▪ Must consider criteria in section 3 of the E.O. 	<ul style="list-style-type: none"> ▪ ORVs by permit are exempt from E.O. 11644 and 36 C.F.R. § 4.10. E.O. 11644 § 2(3); <i>see also 51 FR 31626, 51 FR 31844.</i> ▪ Existing ORV trails ▪ Permit required ▪ Finding that ORV use is compatible with park purposes ▪ Permit conditions required to protect resources 	<ul style="list-style-type: none"> ▪ Must have been traditionally employed ▪ Wilderness Act does not apply 	<ul style="list-style-type: none"> ▪ Limited to Cape Krusenstern, Malaspina Forelands, and Dry Bay ▪ Limited to ORV use directly incident to the exercise of commercial fishing rights ▪ Expanded use beyond 1979 levels is allowed with a permit. <i>See 36 C.F.R. § 13.21(c)(2).</i> ▪ ORV privileges can be restricted or revoked and a permit for expanded use may be denied when there is either a concern for park resources or if such use would be a significant expansion from 1979 use levels. <i>See 36 C.F.R. § 13.21(c)(1), (c)(2)(ii)(A)-(B)</i> ▪
Parks Affected		WRST	WRST	CAKR, GLBA, WRST

* This table does not represent a complete list of statutes and regulations authorizing ORVs in Alaska park areas.

Alaska Regional Management Policies

Since 1980, ORV-related management issues have been addressed by several internal workgroups as well as in legislation ratifying an agreement that included a land exchange in Gates of the Arctic National Park and Preserve. Most of these efforts have addressed subsistence ORV use.

In 1997, the NPS prepared a document reviewing laws and regulations applicable to subsistence.⁶² This document was reviewed in draft by the public before becoming final. Section 4 of this document addresses subsistence ORV access. In this document, the NPS stated that while “[ORVs] are generally not permitted for subsistence within NPS lands, . . . [ORV] use may be permitted if such use is found to be traditional.”⁶³ The NPS recognizes that Congress intended to allow for advances in technology in making a “traditionally employed” finding.⁶⁴ The NPS will make “[d]eterminations of where ORV’s [sic] have been traditionally employed . . . on a community or area basis”⁶⁵ in collaboration with the SRCs. Determinations are/will be made in a regional context recognizing cultural differences and will be based on research findings “documenting traditional and contemporary access modes, use areas, and routes.”⁶⁶ If ORVs are determined to be “traditionally employed” for subsistence, the NPS will manage subsistence ORV use “subject to reasonable regulation to protect park values and park resources.”⁶⁷ Wrangell-Saint Elias National Park and Preserve is the only park area to determine that ORVs were traditionally employed for subsistence by local rural residents.⁶⁸

Congress also addressed subsistence ORV use in 1996 in Gates of the Arctic National Park and Preserve.⁶⁹ The legislation resulted from a “lengthy dispute between the NPS and residents of Anaktuvuk Pass[.]”⁷⁰ Residents of Anaktuvuk Pass sought to use ORVs for subsistence access to subsistence resources on park lands. The NPS position was that ORVs were not a traditional means of surface transportation and were therefore prohibited.⁷¹ The National Park Service and the Nunamiut Corporation initiated discussions in 1985 to address concerns over the use of all-terrain vehicles on park and wilderness land. These discussions resulted in an agreement, originally executed in 1992 and thereafter amended in 1993 and 1994, among the National Park Service, Nunamiut Corporation, the City of Anaktuvuk Pass, and Arctic Slope Regional

⁶² National Park Service, Subsistence Issues Paper, at 15 (August 1997) (on file with the NPS-Alaska Regional Office).

⁶³ Id.

⁶⁴ Id. at 16.

⁶⁵ Id. at 15.

⁶⁶ Id. at 19.

⁶⁷ Id. at 15.

⁶⁸ Wrangell-St. Elias National Park and Preserve General Management Plan, 1986 at 17.

⁶⁹ Pub. L. 104-333, Div. I, Title III, Section 302, Nov. 12, 1996, 110 Stat. 4117.

⁷⁰ Id. at 15.

⁷¹ Final Legislative Environmental Impact Statement (EIS) All-Terrain Vehicles for Subsistence Use, Gates of the Arctic National Park and Preserve, Alaska, at 3. The EIS documented use as early as 1950 associated with the United States Geological Survey. The first ORV was acquired by an Anaktuvuk resident in 1960 and during the next decade four more ATVs were purchased by Anaktuvuk residents. Id. at 4. The EIS states that by 1975 there were eight ATVs in the village and by 1980, there were fifteen ORVs in Anaktuvuk Pass. Id. at 5.

Corporation. Full effectuation of this agreement, as amended, by its terms required ratification by the Congress. To resolve the conflict, Congress ratified the agreement in 1996.

While the majority of ORV related documents and decisions concern subsistence use, the NPS seeks to address all types of ORV use and issues as consistently as possible on a statewide basis while recognizing regional/cultural differences.

National Park Service Management Policies 2001

NPS Management Policies 2001 is the highest of three levels of guidance documents in the NPS Directives System. Interim updates or amendments may be accomplished through director's orders (the second level in the system), while the most detailed and comprehensive guidance on implementing policies will be found in level three handbooks or reference manuals issued by associate directors. Very few of the latter have been developed to clarify guidance for management of ORV use in NPS units.

There are numerous sections of the NPS Management Policies that offer guidance in cases where ORV uses are allowed in NPS managed areas. All of these policies must be viewed in the context of specific statutory and regulatory provisions that apply in a particular unit. A decision to authorize ORV use must be consistent with policy. These policies also provide a framework for compliance and mitigation of potential impacts. The following is a summary of four NPS policies that apply most directly to managing ORV uses in NPS units.

1. Section 1.4 of the Management Policies represents the NPS interpretation of the Organic Act of 1916. The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that would otherwise be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts (Section 1.4.5 What Constitutes Impairment of Park Resources and Values).

The NPS established a workgroup to develop the guidance on the definitions of "impairment" required by Director's Order #55, which was superseded by section 1.4 of the Management Policies. The current consensus is that NEPA and NHPA Section 106 impact assessments offer the best process for impairment documentation.

2. Impacts of motorized equipment can be more than the obvious physical impacts to soils, wetlands, vegetation, or wildlife species. The NPS is required to preserve, to the greatest extent possible, the natural soundscapes of parks. Using appropriate management planning, superintendents will identify what levels of human-caused sound can be accepted within the management purposes of parks (Section 4.9, Soundscape Management).

3. The term "wilderness" will apply to lands that are suitable for wilderness designation, wilderness study areas, proposed wilderness, recommended wilderness, and designated wilderness. Potential wilderness may be a subset of any of these five categories. The policies

apply regardless of category (Section 6.3.1 General Policy). Managers contemplating the administrative use of aircraft or other motorized equipment or mechanical transportation in wilderness must consider impacts to the character, esthetics, and traditions of wilderness before considering the costs and efficiency of the equipment (Section 6.3.4.3 Environmental Compliance).

Public use of motorized equipment or any form of mechanical transport is prohibited in wilderness except as provided for in specific legislation. Applicable provisions of ANILCA implemented in 36 CFR part 13 and 43 CFR part 36 govern the use of motorized equipment by the public in wilderness areas in Alaska. The specific conditions under which the public may use motorized equipment will be outlined in each park's wilderness management plan (Section 6.4.3.3 Use of Motorized Equipment).

4. NPS administrative off-road vehicle use will be limited to what is necessary to manage the public use of designated off-road vehicle routes and areas; to conduct emergency operations; and to accomplish essential maintenance, construction, and resource protection activities that cannot be accomplished by other means (Section 8.2.3.1 Off-Road Vehicle Use).



II. CURRENT STATUS OF ORV USE IN ALASKA NATIONAL PARK UNITS

This section summarizes results from a preliminary survey completed by Alaska park staff in February 2002 on current ORV use patterns in Alaska park units. The survey asked for highly subjective data based on the best professional judgement of a limited number of people. The data were not gathered following a systematic on-the-ground survey. In many locations, NPS knowledge of routes, route condition, and associated impacts is neither up-to-date nor complete. Accordingly, readers must recognize the data garnered from the survey have a significant margin of error and are intended to be used only as a starting point for initiating more studies or where management actions may need to be taken.

Current Use and Trends

ORV use is known to occur in 13 Alaska park units. Kenai Fjords and Sitka reported no ORV routes or use in their units. It is not known whether ORV use occurs in Alagnak. These 13 units reported 65 routes totaling an estimated 700 miles. An unknown amount of dispersed use is also known to occur in several units. The reported routes range from one to 100 miles long, with an average length of 13 miles. Almost all known ORV routes were unplanned, user-developed routes, some of which are likely historical routes. Approximately half of the routes are mentioned in NPS documents, but less than a fourth are mapped by GPS. Most routes are in the parks and preserves of the Alaska Region units. Approximately 50 percent are located in designated or suitable wilderness. Minimal ORV use is thought to occur in monuments (ANIA, CAKR). Wrangell-St. Elias, Lake Clark, and Denali Parks/Preserves have the most known individual routes: 17, 13, and 10, respectively.

Park staff indicated that most routes in units are believed to be used for more than one purpose. Approximately three-quarters of the reported routes are thought to be used for both subsistence and recreation. Less than one half are thought to be used to access private inholdings. The vast



majority of use is thought to be by three and four-wheelers, though other ORVs, including Argos, six-wheelers, pick-up trucks are also known to be used in certain areas. It is thought that “weasels,” tracked ORVs, use only a few routes. It is believed that use is increasing on a majority of the routes reported.

Park staff were asked to use their best professional judgment to rate routes as either “generally good condition,” “has some problem areas,” or being “severely degraded. Of those routes where conditions were known, approximately half are generally in good condition, roughly one third have “some problem areas,” and less than one quarter were considered “severely degraded.” It is thought that almost half of these routes are deteriorating or are continuing to deteriorate, approximately a third have stable route conditions, and conditions on a few of the routes are improving.

Management of Routes

Parks were asked to assign a priority (none, low, medium, high) to ORV issues. Kenai Fjords and Sitka stated that ORV use is not an issue. Denali, Klondike Gold Rush, Gates of the Arctic, Yukon-Charley, Alagnak, Kobuk Valley, Noatak, and Bering Land Bridge reported that ORV issues are a low priority for the park. Aniakchak, Cape Krusenstern, Lake Clark, Katmai, and Glacier Bay responded that ORV issues are a medium priority. Wrangell-St. Elias assigned ORV issues as a high priority for the park.

Of the 65 known routes, most park units have no on-the ground management actions planned in the immediate future. However, Klondike Gold Rush has been publishing public advisory notices and installing barriers to control ORV access. Additionally, Wrangell St.Elias and Denali are planning to prepare environmental documents that address ORV use. Park staff also reported that all severely degraded routes and almost half of the routes in generally good condition are being monitored in some fashion.

The majority of units indicated that most of their ORV related monitoring and management activities are done collaterally to other duties such as backcountry patrols, overflights, and law enforcement. These monitoring efforts tend to produce only subjective, qualitative data and provide only a coarse picture of change over time.

If funds and staff were available, park staff indicated that the following projects would be desirable:

- Route inventories and monitoring efforts (Aniakchak, Denali, Lake Clark, Western Arctic)
- Aerial photo surveys every five years of ORV routes (Western Arctic)
- Route inventory, mapping, and condition assessment (Lake Clark)
- Route mitigation or rehabilitation measures (Wrangell-St. Elias, Gates of the Arctic, Glacier Bay, Lake Clark)
- Soil surveys of routes and dispersed use areas (Wrangell-St. Elias)
- Responding to SRC suggestions that the initial determinations that ORVs were not traditionally employed within the units be reexamined (Katmai, Aniakchak, Denali)
- Determining public wants and needs for ORV access (Wrangell-St. Elias)
- Baseline data (most park units)

associated impacts. The use observation is supported by industry sales figures for the state. They document the sale of more than 25,000 small personal vehicles, predominately 4-wheeler ORVs, since the late 1970s with double digit sales figures for the last 3-4 years. It is generally accepted that this class of vehicle is largely responsible for the expansion of route systems and impacts across the state.

Based on patterns observed in other parts of the state, this increased use of ORVs across the state can be expected to lead to a rapid expansion of route miles in the near future.

Little research has been conducted to profile the typical ORV user. The general state of knowledge suggests that ORV users represent a broad spectrum of Alaskans, and ORV use is well integrated into both urban and rural lifestyles. Anecdotal evidence indicates that rural users typically use their machines for hunting, fishing, berry-picking, wood-gathering, and access to remote cabin and recreation sites. Urban users predominately use their machines to support sport hunting. Purely recreational use of ORVs appears to be less common than recreational snowmachine use, but a few areas relatively close to urban areas appear to receive heavy recreation ORV use during summer months.

The Development of Best Management Practices

NPS units need to evaluate through the NEPA and other processes whether routes are needed. If the process shows that ORV use is appropriate and if so, the manner in which use should occur. Best Management Practices should be considered and identified when planning for continued ORV use.

In recent years, the mitigation of degraded ORV routes has been the focus of research across the state and a number of studies have been initiated on methods to harden routes. This has stimulated a broader interest in the overall ORV routes management issue. New techniques for documenting route locations and inventorying route conditions have been developed, and a wider range of management



options is being explored. This work is leading to the development of a set of Best Management Practices (BMPs) for ORV routes. BMPs are systematic methods to describe route conditions that will provide managers with technical elements for sound science based resource management and decision making.

Statewide there has generally been a supportive interagency environment for discussions on ORV-related issues. This may be due to the overwhelming nature of the issue and the lack of management focus it has received by most agencies until recently. One indication of that increased interest was the wide agency and local government representation at the Alaska Recreation Rendezvous 2001 that took place September 2001 in Wasilla. There, more than 200 people met to discuss common route interests and begin to explore the complex issues associated with ORV management.

There was also widespread support for the April 2002 ATV and Snowmachine Summit and Workshop held in Anchorage. That meeting attempted to address some of the major issues facing the state. A strategy for interagency and public cooperation and response was proposed. We anticipate that follow-up interagency and stakeholder discussion groups will provide a framework for collaboration and partnerships that NPS can build on in the next few years.

In addition, the Forest Service and BLM have initiated several nationwide efforts to address common concerns and/or mandates. These include methods of inventorying route conditions and conducting route-planning training. The NPS could collaborate on those efforts.

Suggested Areas for Further Study and Information Gathering

- **Develop a regionwide strategy for collecting time-series data to track ORV use and its associated impacts on NPS managed lands.** Currently, there is only one dataset that addresses ORV use through time. Time-series information is key to detecting and monitoring ORV-related trends on both a unit by unit and regionwide basis. This might also include collecting information on routes and modes of transportation used.
- **Obtain more accurate information regarding the location and length of routes and the location of dispersed use areas.** Based on questionnaire responses, eight of ten routes are not GPS mapped and do not have alignments data plotted on GIS.
- **Develop a systematic process for assessing route conditions, ORV impacts, and number of ORV users.** Objective criteria for evaluating and determining the conditions of existing routes need to be developed to improve data quality, consistency, and compatibility.
- **Assess future demand for ORV access and use.** Further ORV study should include socio-cultural research to determine the density of ORV ownership in local communities in, or adjacent to, park units and to identify the activities and purposes that ORVs support. It is also important to determine the level of ORV use by people from other areas and identify how and for what purposes they use ORVs.
- **Continue to develop Best Management Practices.**

-
14. Publish route maps from the Dry Bay area in Glacier Bay National Preserve.
 15. Improve boundary signage in Denali National Park to preclude recreational users from mistakenly using ORVs in the park.
 16. Conduct oral history interviews in Aniakchak Monument resident zone communities to identify routes and modes of transportation used to access the monument.
 17. Consult with the Cape Krusenstern National Monument (CAKR) Subsistence Resources Commission (SRC) and others to evaluate designating an ORV route from Sheshalik to the village of Kivalina. Evaluate proposing feeder trails off the main coastal trail to access subsistence resources in CAKR.
 18. After discussions with users and evaluating the current resource impacts, Glacier Bay will make a determination as to the areas and routes where ORV use is authorized for supporting commercial fishing activities in the national preserve. Once the authorized routes and areas have been identified or determined, Glacier Bay will permanently close trails and areas not used in conjunction with commercial fishing or that have caused significant resource damage.
 19. In Glacier Bay National Preserve, evaluate installing a bridge or rerouting the Dog Salmon Creek crossing.
 20. Re-evaluate this action plan in two years.

LONG-TERM ACTIONS

21. Evaluate routes that are determined to be in poor condition. Continue to develop Best Management Practices. Develop management alternatives, including retention, relocation, replacement, mitigation, repair, and/or closure on routes that are in poor condition.
22. Map Pike Ridge Trail and determine location in relation to the park boundary in Katmai National Park. Continue discussions with Paug-Vik Ltd. and others on trail uses.
23. Review 2002 aerial photos of Aniakchak Caldera, Aniakchak River corridor, and coastal areas to provide a baseline for monitoring possible future uses.
24. Seek increased funding to perform inventory and monitoring of ORV use areas in the Cantwell, Stampede Corridor, and Kantishna Hills areas of Denali National Park.

Walker, Donald A., and Marilyn D. Walker. 1991. History and pattern of disturbance in Alaskan arctic terrestrial ecosystems: A hierarchical approach to analyzing landscape change. *J. of Applied Ecology* 28:244-276.

Walker, D.A., D. Cate, J. Brown, and C. Racine. 1987. Disturbance and recovery of arctic Alaskan tundra terrain: a review of recent investigations. U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory, Hanover, NH, CRREL report 87-11. 63 pp.

MITIGATION METHODS for ASSOCIATED IMPACTS from ATV/ORV USE

Allen, J.L., Shea, K.E. Loya, W.M. & Happe, P.J., 2000. All-Terrain Vehicle (ATV) Trail Mitigation Study: Comparison of Natural and Geosynthetic Materials for Surface Hardening. Wrangell-St. Elias National Park and Preserve Research and Resource Report No. 00-1, US Department of the Interior, National Park Service, Wrangell-St. Elias NP&P, Copper Center, Alaska.

Meyer, Kevin. 1998. Subjective evaluation of ATV trail treatments, Nabesna Road area, Wrangell-St. Elias National Park and Preserve. Unpublished Report, USDI National Park Service, Alaska Support Office, Anchorage, Alaska.

Meyer, K.G., 1999a. Coal Creek Upper Road Improvement Project –1999 Season report. Unpublished report, USDI National Park Service, Alaska/ Support Office, Anchorage, Alaska.

Meyer, K.G., 1999b. Coal Creek Upper Road Improvement Prescription 2000-2001. Unpublished report, USDI National Park Service, Alaska Support Office, Anchorage, Alaska.

Meyer, Kevin, 2001a. Installation Guide for Porous Pavement Panels as Trail Hardening Materials for Off-Highway Vehicle Trails. Unpublished report. USDI National Park Service, Alaska Support Office-Rivers, Trails, and Conservation Assistance Program, Anchorage, Alaska.

Meyer, Kevin, 2001b. Installation Guide for Slab-plank Boardwalk Utilizing Beetle-Killed Spruce as a Trail Hardening Material for Off-Highway Vehicle Trails on the Lower Kenai Peninsula, Alaska. Unpublished report. USDI National Park Service, Alaska Support Office-Rivers, Trails, and Conservation Assistance Program, Anchorage, Alaska.

Monlux, S., and Vachowski, B., 1995. Geosynthetics for Trails in Wet Areas, USDA, Forest Service, Technology and Development Program, Missoula, Montana 59801.

Slaughter, Charles W., Charles H. Racine, Donald A. Walker, Larry A. Johnson, and Gunars Abele. 1990. Use of Off-road Vehicles and Mitigation of Effects in Alaska Permafrost Environments: A review. *Environmental Management*, Vol. 14, No.1 pp. 63-72.

MONITORING METHODS

Cook, M.B. 1990a. Monitoring report for access to mine claims in the Gold Hill areas in Wrangell-St. Elias National Park and Preserve, Alaska. Unpublished report. Wrangell-St. Elias National Park and Preserve, P.O. Box 439, Copper Center, AK 99573.

Connery, Bruce. 1987. Mechanized Vehicle Trail Survey. Unpublished Report. Wrangell-St. Elias National Park and Preserve, P.O. Box 439, Copper Center, AK 99573.

Happe, P.J., K.E. Shea, and W.M. Loya. 1998. Assessment of All-Terrain Vehicle (ATV) Impacts within Wrangell-St. Elias National Park and Preserve, Alaska. 1997. WRST Research and Resource Management Report, No. 98-1. Wrangell-St. Elias National Park and Preserve, P.O. Box 439, Copper Center, AK 99573.

Teare, Kathleen A., and Cynthia R. Meyers. 1984. Final Report Trail and Campsite Inventory (Kuskulana Trail and Upper Kotsina Road). Unpublished report. USDI, National Park Service, Wrangell-St. Elias NP/P, Copper Center, AK. 22 pp.

ADDITIONAL GENERAL TRAIL SYSTEM MANAGEMENT REFERENCES

Birkby, Robert C., 1996. Lightly on the Land – The SCA Trail Building and Maintenance Manual. The Mountaineers, 1001 SW Klickitat Way, Seattle, Washington 98134.

Proudman, Robert D., and Reuben Rajala, 1981. Trail Building and Maintenance 2nd Edition, 1981, Appalachian Mountain Club, #5 Joy Street, Boston, MA 02108.

Hessilbarth, Woody, and Brian Vachowski, 2000. Trail Construction and Maintenance Notebook, USDA Forest Service Technology and Development Program, Building 1, Fort Missoula, Missoula, Montana 59804.

Meyer, Kevin G., 2002. A Proposed set of Best Management Practices for Off-Highway Vehicle Trails for Alaska. Unpublished report. USDI National Park Service, Alaska Support Office- Rivers, Trails, and Conservation Assistance Program, Anchorage, Alaska.

Steinholtz, Robert, and Brian Vachowski, 2001, Wetland Trail Design and Construction, 8E82A3—Trail Treatment for Wet Areas, USDA Forest Service Technology and Development Program, Building 1, Fort Missoula, Missoula, Montana 59804.

USFS, 1991, Alaska Region Trails Construction and Maintenance Guide, USDA Forest Service, Alaska Region Publication R10-MB-158.

