

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****[1018-AG19]****Draft Wilderness Stewardship Policy Pursuant to the Wilderness Act of 1964****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Notice.

**SUMMARY:** We propose to modify our policy for implementing the Wilderness Act of 1964 and the National Wildlife Refuge System Administration Act of 1966 as amended, as Part 610 Chapters 1–7 of the Fish and Wildlife Service Manual. Congress calls for the establishment of a National Wilderness Preservation System to secure an “enduring resource of wilderness” for the American public. This policy updates guidance on administrative and public activities on wilderness within the National Wildlife Refuge System.

**DATES:** Comments must be received by March 19, 2001.

**ADDRESSES:** Send comments concerning this draft wilderness stewardship policy via mail, fax or email to: National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia 22203; fax (703)358–2248; e-mail Wilderness\_Policy\_Comments@fws.gov. See **SUPPLEMENTARY INFORMATION** for further information on submitting comments.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Souheaver, National Wildlife Refuge System, U.S. Fish and Wildlife Service, Telephone (703)358–1744.

**SUPPLEMENTARY INFORMATION:** The Wilderness Act of 1964 provides the basis for wilderness protection on the National Wildlife Refuge System (System). It clearly establishes that, as we carry out the Service’s mission, the System mission and goals, and the individual refuge establishing purposes in areas designated as wilderness, we do it in a way that preserves wilderness character. This policy gives refuge managers uniform direction and procedures for making decisions regarding conservation and uses of the System wilderness areas.

**Purpose of This Draft Policy**

The purpose of this draft policy is to implement the Wilderness Act of 1964 within the System. When finalized, this policy will replace existing policy found in the Refuge Manual. It prescribes how the Federal land manager preserves the character and qualities of designated wilderness while managing for the

refuge establishing purpose(s), maintains outstanding opportunities for solitude and a primitive and unconfined type of recreation, and conducts minimum requirements analyses before taking any action that may impact wilderness character.

This policy includes the following chapters.

Chapter 1 establishes responsibility for wilderness stewardship, defines terms, and establishes training requirements.

Chapter 2 describes the broad framework within which we manage wilderness, discusses the philosophical underpinnings of wilderness, requires refuges to fulfill the establishing purpose(s) of the refuge and the wildlife conservation mission of the System in ways that prevent degradation of the wilderness that otherwise comply with the requirements of the Wilderness Act, and establishes a process for conducting minimum requirements analyses.

Chapter 3 addresses the general administration of wilderness and natural and cultural resource management. It clarifies the circumstances under which generally prohibited uses (temporary roads, motor vehicles, motorized equipment, motorboats, mechanical transport, landing of aircraft, structures, and installations) may be necessary for wilderness protection. It addresses commercial uses, research, and public access. It confirms that we will generally not modify habitat, species population levels, or natural ecological processes in refuge wilderness unless doing so maintains or restores ecological integrity that has been degraded by human influence or is necessary to protect or recover threatened or endangered species.

Chapter 4 addresses public use management in wilderness. It explains that wilderness areas will emphasize providing opportunities for solitude and a primitive and unconfined type of recreation. Appropriate recreational uses in wilderness are compatible, wilderness-dependent, nonmotorized activities that involve no mechanical transport. This includes the six priority wildlife-dependent uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and environmental interpretation), if they are compatible. Special needs for persons with disabilities are also addressed.

Chapter 5 confirms that wildland fires are an ecological and evolutionary process of wilderness, and that we respond to such fires according to the refuge Fire Management Plan and in accordance with minimum

requirements. We may use prescribed fire to maintain or restore ecological integrity that has been degraded by human influence or is necessary to protect or recover threatened or endangered species.

Chapter 6 provides guidance on developing Wilderness Management Plans.

Chapter 7 describes the three-part process for conducting wilderness reviews. An inventory identifies areas that meet the basic definition of wilderness; a study evaluates all the values, resources, and uses within the area; and the recommendation follows upon completion of an Environmental Impact Statement.

**Fish and Wildlife Service Directives System**

Because many of our field stations are located in remote areas across the United States, it is important that all employees have available and know the current policy and management directives that affect their daily activities. The Fish and Wildlife Service Directives System, consisting of the Fish and Wildlife Service Manual, Director’s Orders, and National Policy Issuances, is the vehicle for issuing the standing and continuing policy and management directives of the Service. New directives are posted on the Internet upon approval, ensuring that all employees have prompt access to the most current guidance.

The Fish and Wildlife Service Manual contains our standing and continuing directives with which our employees must comply and has regulatory force and effect within the Service. We use it to implement our authorities and to set forth our means of compliance with statutes, executive orders, and Departmental directives. It establishes the requirements and procedures to assist our employees in carrying out our responsibilities and activities.

The Fish and Wildlife Service Manual, Director’s Orders, and National Policy Issuances are available on the Internet at <http://www.fws.gov/directives/direct.html>. When finalized, we will incorporate this wilderness stewardship policy into the Fish and Wildlife Service Manual as Part 610 Chapters 1–7.

**Authorities**

Our authorities to manage wilderness include:

A. Wilderness Act of 1964 (16 U.S.C. 1131–1136)

B. Alaska National Interest Lands Conservation Act (ANILCA) of 1980 (16 U.S.C. 410 hh—3233, 43 U.S.C. 1602–1784),

C. National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-ee), as amended.

D. Specific Service Wilderness Area Authorities. Public Laws 90-532, 91-504, 92-364, 93-429, 93-550, 93-632, 94-557, 95-450, 96-487, 96-560, 97-211, 98-140, and 101-628.

### Comment Solicitation

We seek public comments on this draft wilderness stewardship policy and will take into consideration comments and any additional information received during the 60-day comment period. If you wish to comment, you may submit your comments by any one of several methods. You may mail comments to: National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia 22203. You may comment via the Internet to:

Wilderness\_Policy\_Comments@fws.gov. Please submit Internet comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include: "Attn: 1018-AG19" and your name and return address in your Internet message. If you do not receive a confirmation from the system that we have received your Internet message, contact us directly at (703)358-1744. You may also fax comments to: National Wildlife Refuge System, (703)358-2248. Finally, you may hand-deliver comments to the address mentioned above.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

This draft Fish and Wildlife Service Manual Wilderness Stewardship policy will be available on the National Wildlife Refuge System web site (<http://refuges.fws.gov>) during the 60-day comment period.

### Required Determinations

1. *Regulatory Planning and Review.* In accordance with the criteria in Executive Order 12866, this document is not a significant regulatory action. The Office of Management and Budget (OMB) makes the final determination under Executive Order 12866.

a. This document will not have an annual economic effect of \$100 million or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government. A cost-benefit and full economic analysis is not required. The purpose of this document is to update the wilderness management policy implemented by the Wilderness Act of 1964 pursuant to the National Wildlife Refuge System Improvement Act of 1997. A large portion of the updated policy addresses administrative actions and procedures that will enhance the public's wilderness experience by better preserving wilderness character. The updated policy makes only minor modifications to existing refuge wilderness public use programs. These modifications include: encouraging the use of Leave No Trace techniques that will leave the wilderness unimpaired for subsequent users; prohibiting extreme sports (which currently rarely occur); emphasizing the importance of solitude, risk, and challenge in a wilderness experience; encouraging education programs to better inform the public about wilderness; monitoring public use and its physical and social effects; and addressing the special needs of persons with disabilities. The basic restrictions on public use have not changed from current policy: we limit public travel to nonmotorized, nonmechanized means; we allow only commercial uses necessary for realizing the recreational purposes of the wilderness; and we allow scientific studies that conform to minimum requirements.

The data are insufficient to provide more than broad estimates about the effects of this updated policy on public use of wilderness areas on national wildlife refuges. The Service expects that refuges that improve the quality of their wilderness areas, and thereby increase the opportunities for high-quality wilderness experiences, will see an increase in public use. The Service estimates that on balance there will be an increase of 10 percent in the public's use of wilderness areas on refuges.

Following a best-case scenario, three quantifiable outcomes would be attributable to the updating of the wilderness policy. First, if 75 percent of the refuges that currently have designated wilderness were to establish

a quality wilderness experience, it would mean an estimated 297,929 user days with a higher level of consumer surplus (Table 1). Second, if an additional 10 percent participation rate in wilderness experiences took place, it would mean an additional 39,724 user days. Third, some of the former wilderness users would switch to sites that allow motorized entrance or some other prohibited mode in wilderness areas. This last effect would be offset by new entrants to the wilderness experience, therefore, we estimate only the additional consumer surplus from new entrants since we have no reason to believe a change in consumer surplus would occur for those users who choose alternative sites with characteristics similar to what they were accustomed.

Since 1991, the trend in wildlife-related activities away from home has been increasing at a slow but steady rate, so we have reason to believe that quality experiences will attract new participants. Using the value of the difference in the upper and lower bounds of the 95 percent confidence interval for average consumer surplus to represent the estimate of the increase in consumer surplus for higher quality fishing and hunting (Walsh, Johnson, and McKean, 1990) yields an estimated increase in consumer surplus of \$7.1 million annually. The use of the 95 percent confidence interval will remove the results of outlier studies and will be an acceptable estimate of quality differences in the consumer surplus estimates. To this we add the increase in consumer surplus for an estimated 10 percent new participants, for a total of \$8.6 million annually attributable to the updated policy on wilderness management.

The probability of upgrading all refuges with wilderness programs to true wilderness characteristics, as defined by Congress, is very low. Resource constraints have kept these refuges from upgrading wilderness experiences, and it is unlikely that this updated policy will cause all refuges with wilderness designation to upgrade their programs immediately. As a result, we do not expect that this document will increase consumer surplus by as much as \$8.6 million annually. Consequently, this document will have a small measurable economic benefit on the U.S. economy but will not have an annual effect of \$100 million or more needed for a determination as a significant rulemaking action.

b. This document will not create inconsistencies with other agencies' actions. This updated policy has been developed with the assistance of personnel versed in Federal wilderness

policy, and is consistent with the wilderness policies of the U.S. Forest Service, National Park Service, and Bureau of Land Management. An interagency wilderness committee meets monthly to discuss and coordinate on wilderness issues. The committee received a copy of the draft policy update and identified no major inconsistencies.

c. This document will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. This updated policy prescribes the management of designated wilderness within the National Wildlife Refuge System. Access to wilderness will be consistent with the outstanding rights-of-way, easements of record, enabling legislation, or other rights granted by law. User fees will not be charged as a result of this policy.

d. This document will not raise novel legal or policy issues. This policy is a revision and clarification of similar policy finalized in May 1986 and, as such, does not present any significant opportunity for novel issues.

2. *Regulatory Flexibility Act.* We certify that this document will not have

a significant economic effect on a substantial number of small entities as defined under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). A Regulatory Flexibility Analysis is not required. Accordingly, a Small Entity Compliance Guide is not required.

This policy is administrative, legal, technical, and procedural in nature and provides updated instructions for the maintenance of wilderness areas on the National Wildlife Refuge System. This policy does not increase the types of recreation allowed on the Refuge System but establishes an emphasis on the characteristics desired for a wilderness experience. As a result, opportunities for wilderness experiences on national wildlife refuges may increase. The maintenance of wilderness characteristics are likely to increase visitor activity on the national wildlife refuge. But, as stated above, there is a slight increase in the trend for this activity so the increase may not be that of a substitute site for the activity. At least some, if not all, of the increase will be in participation rates for wilderness use. To the extent visitors spend time and money in the area of the refuge that they would not have spent

there anyway, they contribute new income to the regional economy and benefit local businesses.

For purposes of analysis, we will assume that any increase in refuge visitation is a pure addition to the supply of the available activity. This will result in a best-case scenario and is expected to overstate the benefits to local businesses. The latest information on the distances traveled for fishing and hunting activities indicates that over 80 percent of the participants travel less than 100 miles (160 km) from home to engage in the activity. This indicates that participants will spend travel-related expenditures in their local economy. Since participation is scattered across the country, many small businesses benefit. Expenditures for food and lodging, transportation, and other incidental expenses are identified in the National Survey of Fishing, Hunting, and Wildlife Associated Recreation. Using the average expenditures for these categories for wildlife-related recreation away from home with the expected additional participation on the Refuge System yields the following estimates (Table 1).

TABLE 1.—ESTIMATION OF POSSIBLE WILDERNESS OPPORTUNITIES WITH NEW REFUGE POLICY

	Refuge surplus visits	Consumer per day	Without policy update (base)	With policy update change
Refuge Visits With:				
Lower Quality Wilderness .....	297,929	\$12.62	\$3,759,867	\$7,126,468
High Quality Wilderness .....	99,310	36.54	3,628,778	
Total Refuge Wilderness Visits .....	397,239		7388,645	
Increased Wilderness Visits (10%) .....	39,724	36.54		1,451,511
Total Increase in Consumer Surplus .....				8,577,979

Using a national impact multiplier for wildlife-associated recreation developed for the report "1996 National and State Economic Impacts of Wildlife Watching" for the estimated increase in direct expenditures yields a total economic impact of \$46.0 million (Table 2). Since we know that most of the fishing and hunting (and most likely other wildlife-dependent recreation activities) occurs within 100 miles (160 km) of a participant's residence, then it is unlikely that most of this spending would be "new" money coming into a local economy and, therefore, would be offset with a decrease in some other sector of the local economy. The net gain to the local economies would be no more than \$46.0 million and most likely considerably less. Since 80 percent of the participants travel less than 100 miles (160 km) to engage in hunting and fishing activities (and we assume that a

similar relationship would hold for other wildlife-dependent activities), their spending patterns would not add new money in the local economy and, therefore, the real impact would be on the order of \$9.2 million annually.

TABLE 2.—ESTIMATED EXPENDITURES ASSOCIATED WITH ADDITIONAL REFUGE VISITATION

Total Refuge wilderness visits .....	397,239
A 10% increase in visits .....	39,724
Average Expenditures per trip .....	\$397
Total direct expenditures .....	\$15,770,428
National impact multiplier .....	2.92
Total impact .....	\$46,049,650
80% of impact is a transfer ..	\$36,839,720
20% of impact is new money benefit .....	\$9,209,930

Many businesses (both large and small) may benefit from some increased wildlife refuge visitation. However, we expect that much of this benefit will go to small business because wilderness areas tend to be in rural areas where fewer large businesses locate. We expect that the incremental recreational opportunities will be scattered, and so we do not expect that the document will have a significant economic effect on any region or nationally.

3. *Small Business Regulatory Enforcement Fairness Act.* The document is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This document:

a. Does not have an annual effect on the economy of \$100 million or more. The addition of some wilderness experience opportunities at refuges

would generate expenditures by wilderness participants with an economic impact estimated at \$9.2 million per year. Consequently, the maximum benefit of this document for businesses both small and large would not be sufficient to make this a major rule. The impact would be scattered across the country and would most likely not be significant in any local area.

b. Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions. This document will have a small effect on the expenditures of new participants for wilderness opportunities of Americans. Under the assumption that all wilderness opportunities would be of high quality, participants would be attracted to the Refuge System. If the refuge were closer to the participant's residence than alternative sources of wilderness experiences, then a reduction in travel costs would occur and benefit the participant. The Service does not have information to quantify this reduction in travel cost but has to assume that since most people travel less than 100 miles (160 km) to hunt and fish, that the reduced travel cost would be small for the additional days of wilderness activities generated by this document. We do not expect this document to significantly affect the supply or demand for wilderness opportunities in the United States and, therefore, should not affect prices for equipment and supplies, or the retailers that sell equipment. Refuge System wilderness opportunities account for a small portion of the wilderness opportunities available in the contiguous United States.

c. Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Because this document represents such a small proportion of wildlife-related recreational spending, there will be no measurable economic effect on the wildlife-dependent industry, which has annual sales of equipment and travel expenditures of \$72 billion nationwide. Refuge visitors made 397,239 visits to refuges for wilderness activities during 1999, compared to 34.9 million visitors for all activities on Refuge System lands. This document seeks to preserve wilderness characteristics for those participants who want this experience and is aimed at providing guidance to Federal managers in establishing quality programs, where the opportunity exists for wilderness programs. Refuges that

have or establish wilderness programs may hire additional staff from the local community to assist with the programs, but this would not be a significant increase with a total of 66 refuges participating. Consequently, there is no significant employment or small business effects.

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

a. This document will not "significantly or uniquely" affect small governments. A Small Government Agency Plan is not required. See 1.a., above.

b. This document will not produce a Federal mandate of \$100 million or greater in any year, i.e., it is not a "significant regulatory action" under the Unfunded Mandates Reform Act.

5. *Takings.* In accordance with Executive Order 12630, the document does not have significant takings implications. A takings implication assessment is not required. This policy will not change the ability of inholders to access their property, although it may affect the way in which they may access it. Depending on the specifics of the easements of record, outstanding rights-of-way, enabling legislation, or other rights granted by law, to disturb the fewest wilderness users we may require inholders to modify their: routes of entry so that access will be through a non-wilderness area; method of access, and use of nonmotorized means; or time of entry.

6. *Federalism.* This document does not have significant Federalism effects to warrant the preparation of a Federalism Assessment under Executive Order 13132. This document will not have substantial direct effects on the States, in the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government.

7. *Civil Justice Reform.* In accordance with Executive Order 12988, the Office of the Solicitor has determined that the document does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. The policy will clarify established policy and result in better understanding of the policies by refuge wilderness visitors.

8. *Paperwork Reduction Act.* This policy does not require any information collection from 10 or more parties and a submission under the Paperwork Reduction Act of 1995 is not required.

9. *National Environmental Policy Act.* We have analyzed this document in accordance with the criteria of the

National Environmental Policy Act and 318 DM 2.2(g) and 6.3(D). This document does not constitute a major Federal action significantly affecting the quality of the human environment. An environmental assessment is not required.

We will need to develop Wilderness Management Plans for all refuges with wilderness. We will either incorporate these plans directly into refuge Comprehensive Conservation Plans or as step-down management plans, pursuant to our refuge planning guidance in 602 FW 1-3. We prepare these plans in compliance with section 102(2)(C) of NEPA, and the Council on Environmental Quality's regulations for implementing NEPA in 40 CFR parts 1500-1508. We invite the affected public to participate in the review, development, and implementation of these plans.

10. *Government-to-Government Relationship with Tribes.* In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951) and 512 DM 2, we have evaluated possible effects on Federally-recognized Indian tribes and have determined that there are no effects. We coordinate wilderness use on national wildlife refuges with Tribal governments having adjoining or overlapping jurisdiction.

## Fish and Wildlife Service

### Wilderness Stewardship

#### Part 610

#### Chapter 1—Authorities, Responsibilities, Definitions, and Training Requirements

##### 610 FW 1.1

1.1 *What is the purpose of this chapter?* Our Wilderness Stewardship policy describes how we manage refuge wilderness to meet refuge purposes and accomplish the mission of the National Wildlife Refuge System (System), while protecting the enduring resource of wilderness. This chapter provides guidance for the implementation of the Wilderness Act of 1964 and the National Wildlife Refuge System Administration Act of 1966, as amended. This chapter states our authorities and responsibilities, describes wilderness character and related terms, and establishes training requirements.

1.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the

Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

1.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management include:

A. Wilderness Act of 1964 (16 U.S.C. 1131–1136).

B. Alaska National Interest Lands Conservation Act (ANILCA) of 1980 (16 U.S.C. 410 hh–3233, 43 U.S.C. 1602–1784).

C. National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd–ee) (NWRSA01966), as amended.

D. Clean Air Act Amendments of 1990; Public Law 101–549.

E. Specific Service Wilderness Area Authorities. Public Laws 90–532, 91–504, 92–364, 93–429, 93–550, 93–632, 94–557, 95–450, 96–487, 96–560, 97–211, 98–140, and 101–628.

F. Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–712) as amended.

G. Endangered Species Act of 1973 (16 U.S.C. 1531–1544) as amended.

H. National Historic Preservation Act of 1966 as amended, 16 U.S.C. 470 *et seq.*

I. Archeological Resources Protection Act as amended, 16 U.S.C. 470aa–mm.

J. American Antiquities Act of 1906, 16 U.S.C. 431–433.

K. American Indian Religious Freedom Act of 1978, 42 U.S.C. 1996 and 1996a.

L. Americans with Disabilities Act of 1990, 42 U.S.C. 12207.

M. Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. 3001–3013.

N. National Environmental Policy Act (NEPA) of 1969, as amended, 42 U.S.C. 4321–4347, and the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of NEPA, 40 CFR 1500–1508.

1.4 *What are our responsibilities?* A. Director. The Director provides national policy for managing wilderness and designates a National Wilderness Coordinator.

B. Regional Director. The Regional Director oversees the Regional wilderness management program, designates a Regional Wilderness Coordinator, and assembles Regional Wilderness Review Teams consisting of the Refuge Manager, selected refuge staff, Refuge Supervisor, and the Regional Wilderness Coordinator to coordinate wilderness reviews.

C. Refuge Manager. The Refuge manager protects, manages, and monitors wilderness areas in accordance with Service policy and the unit's Wilderness Management Plan (WMP); ensures that the refuge Comprehensive Conservation Plan (CCP) addresses the management direction of the wilderness units, and determines the need for a WMP; develops and implements the WMP; conducts wilderness reviews; and provides annual information to the Regional Wilderness Coordinator on the status of ongoing inventories and research initiatives used to monitor wilderness areas. Refuge managers may make minimum requirement decisions (610 FW 2).

D. National Wilderness Coordinator. The National Wilderness Coordinator advises the Chief, National Wildlife Refuge System, on wilderness issues; coordinates wilderness management policies with other wilderness management agencies (Bureau of Land Management, National Park Service, and Forest Service); and coordinates and provides assistance to Regional and refuge offices concerning wilderness issues.

E. Regional Wilderness Coordinator. The Regional Wilderness Coordinator advises the Regional directorate, refuge supervisors, refuge managers, and refuge employees on wilderness issues; coordinates and approves wilderness reviews; reviews Wilderness Management Plans; maintains data on wilderness acreage and training requirements within the Region; and provides a Wilderness Acreage Report (See Exhibit 2) to the Chief, National Wildlife Refuge System, by October 1 of each year. The coordinator concurs on all minimum requirement/tool decisions requiring elevation and receives written copies of all minimum requirement decisions.

1.5 *How do we effectively coordinate with the States?* To the extent possible, we coordinate with States through the conduct of regular meetings to discuss cooperative management needs and approaches. Through the comprehensive conservation planning process, we encourage input from and strive for cooperation and coordination with State fish and wildlife agencies, non-government organizations, universities, and others in setting wilderness management goals and objectives. Our regulations allowing hunting of resident wildlife or fishing within the System shall be, to the extent practicable, consistent with State fish and wildlife laws, regulations, and management plans.

1.6 *What terms do we use in this policy?* A. Adequate Legal Access. The

combination of routes and modes of travel that will have the least impact on the wilderness resource, consistent with the outstanding rights-of-way, easements of record, enabling legislation, or other rights granted by law.

B. Aldo Leopold Wilderness Research Institute. An institute located in Missoula, Montana, and established in 1993 to develop “the knowledge needed to improve management of wilderness and other natural areas.” The Institute operates under an interagency agreement among the Bureau of Land Management, the National Park Service, the Fish and Wildlife Service, the Forest Service, and the Biological Resources Division of the U.S. Geological Survey.

C. Alien Species. With respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.

D. Arthur Carhart National Wilderness Training Center. A training center, located in Missoula, Montana, established in 1993 to “foster interagency excellence in wilderness stewardship by cultivating knowledgeable, skilled and capable wilderness managers and by improving public understanding of wilderness philosophy, values, and processes.” The Carhart Center offers training across the country using experts from all levels of the four Federal wilderness-managing agencies, and outside organizations. The Bureau of Land Management, the National Park Service, the Fish and Wildlife Service, and the Forest Service financially support the Carhart Center.

E. Commercial Photography and Filming. Visual and/or sound recording by a business or enterprise for a market audience such as for a documentary, promotional, television or feature film, advertisement, or similar project. It does not mean bona fide breaking news coverage or casual visitor use that does not adversely impact on resources or visitation.

F. Designated Wilderness Area. An area designated in legislation and that we manage as part of the National Wilderness Preservation System.

G. Emergency. A situation that requires immediate action because of imminent danger to the health and safety of persons within a wilderness area.

H. Generally Prohibited Use. Temporary roads, motor vehicles, motorized equipment, motorboats, mechanical transport, landing of aircraft, structures, and installations generally prohibited by the Wilderness Act Section 4 (c). We may allow them

only "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) \* \* \*" or if provided for by the specific wilderness designation legislation for a particular wilderness.

I. Indigenous Species. This means, with respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

J. Invasive Species. This means an alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

K. Limits of Acceptable Change. A planning and management framework for establishing and maintaining acceptable and appropriate environmental and social conditions in recreation settings. It emphasizes the conditions we maintain or attain in an area, rather than how much use it can accommodate.

L. Mechanical Transport. Any contrivance for moving people or material on or over land, water, or air that has moving parts, provides a mechanical advantage to the user, and is powered by a living or nonliving power source. We include, but do not limit this to, sailboats, hang gliders, parachutes, bicycles, game carriers, carts, and wagons. We do not include wheelchairs when used by those whose disabilities require wheelchairs for locomotion. We also do not include skis, snowshoes, rafts, canoes, sleds, travois, or similar primitive devices without moving parts.

M. Minimum Requirement Analysis. A documented process used for determining the appropriateness of all actions affecting wilderness.

N. Minimum Tool. The least intrusive tool, equipment, device, force, regulation, or practice determined to be necessary to accomplish an essential task, that will also achieve the wilderness management objective.

O. Motorized Equipment. Machines that use a motor, engine, or other nonliving power source. We include, but do not limit this to, chain saws, aircraft, snowmobiles, generators, motor boats, and motor vehicles. We do not include small battery- or gas-powered devices such as shavers, wristwatches, flashlights, cameras, stoves, or other similar small equipment. We do not include motorized wheelchairs used as defined under mechanical transport.

P. Nondegradation. This concept specifies that, at the time of wilderness designation, the conditions prevailing in an area establish a benchmark of that

area's naturalness and wildness. We will not allow degradation of these conditions. The presence of undesirable conditions in one wilderness does not set a precedent or standard that we can apply to other areas.

Q. Primitive Recreation. Nonmotorized activities that provide dispersed, undeveloped recreation which do not require facilities or mechanical equipment.

R. Primitive Tool. The equipment or methods that make use of the simplest available technology that relies on human or animal power.

S. Proposed Wilderness. An area of the Refuge System that the Secretary of the Interior (Secretary) has recommended to the President for inclusion in the National Wilderness Preservation System.

T. Roadless Area. A reasonably compact area of undeveloped Federal land that possesses the general characteristics of a wilderness and within which there is no improved road that is suitable for public travel by means of four-wheeled, motorized vehicles intended primarily for highway use. A route maintained solely by the passage of vehicles does not constitute a road.

U. Roadless Island. A roadless area that is surrounded by permanent waters or that is markedly distinguished from surrounding lands by topographical or ecological features such as precipices, canyons, thickets, or swamps.

V. Solitude. One of the key descriptors of wilderness in the Wilderness Act. Wilderness solitude is a state of mind, a mental freedom that emerges from settings where visitors experience nature essentially free of the reminders of society, its inventions, and conventions. Privacy and isolation are important components, but solitude also is enhanced by the absence of other distractions, such as large groups, mechanization, unnatural noise, signs, and other modern artifacts. It is a highly valued component of the visitor's experience because it is conducive to the psychological benefits associated with wilderness and one's free and independent response to nature.

W. Temporary Structure. Any structure that is easy to dismantle, could be removed completely from a site between periods of actual use, and must be removed at the end of each session of use if the intervening non-use period is greater than 30 days. In Alaska, we manage temporary structures in accordance with Section 1316(a) of the Alaska National Interest Lands Conservation Act.

X. Untrammled. A key descriptor of wilderness in the Wilderness Act,

untrammled refers to the freedom of a landscape from the human intent to intervene, alter, control, or manipulate natural conditions or processes to provide particular benefits.

Y. Wheelchair. A device designed solely for the use by a mobility-impaired person for locomotion and that is suitable for use in an indoor pedestrian area.

Z. Wilderness Review. The process we use to determine if we should recommend System lands and waters to Congress for wilderness designation. The wilderness review process consists of three phases: inventory, study, and recommendation. The inventory is a broad look at the refuge to identify lands and waters that meet the minimum criteria for wilderness. The study evaluates all values (ecological, recreational, cultural, spiritual), resources (e.g., wildlife, water, vegetation, minerals, soils), public uses, and management within the Wilderness Study Area. The findings of the study determine whether we will recommend the area for designation as wilderness.

AA. Wilderness Study Area. An area we are considering for wilderness designation. We establish it following the inventory component of a wilderness review. It includes all areas that are still undergoing the review process and areas recommended for wilderness designation by the Director of the U.S. Fish and Wildlife Service (Director) to the Secretary.

BB. Wilderness Values. Wilderness values are physical (wildlife, ecosystems, and natural processes), psychological (opportunity for solitude, i.e., avoid the sights, sounds, and evidence of humans), symbolic (national and natural remnants of American cultural and evolutionary heritage), and spiritual (connection with nature and primal forces).

1.7 *What are the training requirements for National Wildlife Refuge System staff?* A. National Wilderness Coordinator. The National Wilderness Coordinator will attend the next available Arthur Carhart National Wilderness Training Center National Wilderness Stewardship training course following appointment to the position, unless the individual has attended a previous national session, and at least every 2 years, a "Wilderness Issues" course, or another course designed by the Training Center to serve as a review of wilderness policy and an update of current wilderness issues.

B. National Wildlife Refuge System Office Staff. Other staff involved in wilderness planning, protection, management, budget, or recreation should attend a National or Regional

Wilderness Stewardship training course or specialized wilderness courses offered by the Training Center.

C. Regional Wilderness Coordinators. The Regional Wilderness Coordinators will attend the next available National Wilderness Stewardship training course and Regional Wilderness Stewardship training course following their appointment to the position, unless they have attended a previous national or regional session and at least every 2 years, a "Wilderness Issues" course, or another course designed by the Training Center to serve as a review of wilderness policy and an update of current wilderness issues.

D. Refuge Supervisors. Refuge supervisors will attend the National Wilderness Stewardship training course within 2 years, following their appointment to the position, unless they have attended a previous national session and at least every 4 years, a "Wilderness Issues" course, or another course designed by the Training Center to serve as a review of wilderness policy and an update of current wilderness issues.

E. Refuge Managers. Refuge Managers (including complex and unit managers) of refuges containing designated wilderness or a Wilderness Study Area will attend the National Wilderness Stewardship training course within 1 year of their appointment to the position, unless they have attended a previous national session. Other Refuge Managers (including complex and unit managers) should attend the National Wilderness Stewardship training course.

F. Other Refuge Staff. We should train staff members and volunteers who contact visitors on a regular basis regarding wilderness areas in low-impact or "Leave-No-Trace" techniques and be able to help the public make good choices in applying the principles of outdoor ethics.

G. Regional Chiefs, National Wildlife Refuge System. Regional Chiefs, National Wildlife Refuge System, should attend the National Wilderness Stewardship training course within 2 years following their appointment to the position, unless they have attended a previous national session.

1.8 *What are the training requirements for Ecological Services and Fisheries staff?* A. Project Leaders. Project leaders with significant responsibility for Endangered Species Act consultations with wilderness managers or fisheries management in wilderness areas within the Service or with any other Federal agency will attend the National Wilderness Stewardship training course within 2 years of their appointment to the

position, unless they have attended a previous national session.

B. Other Staff. We encourage other Ecological Services and Fisheries staff with significant involvement in issues that affect wilderness planning, protection, management, or recreation to attend a Regional Wilderness Stewardship training course or specialized wilderness courses offered by the Training Center.

1.9 *When should State employees attend wilderness training?* When space is available, the Service may recommend State wildlife managers for a Regional Wilderness Stewardship training course or specialized wilderness courses offered by the Training Center.

## Fish and Wildlife Service

### Wilderness Stewardship

#### Part 610

#### Chapter 2 General Overview

##### 610 FW 2.1

2.1 *What is the purpose of this chapter?* This chapter provides an overview and policy foundation for implementation of the Wilderness Act of 1964 and the National Wildlife Refuge System Administration Act of 1966 as amended. This chapter states the principles of wilderness management, and clarifies the application of the minimum requirement concept.

2.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

2.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management, are contained in 610 FW 1.3.

2.4 *What is the broad framework within which we manage wilderness?* A wilderness overlay deepens and broadens our responsibility to the refuge landscape, compelling us to think beyond our obligation to manage the area for the purposes for which it was established. Wilderness itself is a resource that embodies intangible values as well as biophysical values. As a place "where the earth and its community of life are untrammelled by

man," wilderness serves as a reservoir of biological diversity, biological integrity, and environmental health. Wilderness is also a setting for compatible recreation, restoration, and inspiration, and a touchstone to our heritage as Americans, and more universally, as members in the community of life. The convergence of these diverse values (ecological, experiential, and symbolic) into one evocative and encompassing concept is the sum and substance of wilderness—and the source of its power to connect a diversity of people to these remnant landscapes. Wilderness is a place of restraint, for managers as well as visitors.

##### 2.5 *What is wilderness character?* A.

\* \* \* each agency administering any area designated as wilderness shall be responsible for preserving the *wilderness character* of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its *wilderness character*. [emphasis added]—Section 4 (b), The Wilderness Act of 1964

B. Preserving "wilderness character," referenced throughout the Act and throughout this policy, is one of our criteria for judging the appropriateness of potential management actions, public uses, and technologies in wilderness. Preserving wilderness character requires that we maintain the wilderness condition: the natural, scenic condition of the land, biological diversity, biological integrity, environmental health, and ecological and evolutionary processes. But the character of wilderness embodies more than a physical condition.

C. The character of wilderness refocuses our perception of nature and our relationship to it. It embodies an attitude of humility and restraint that lifts our connection to a landscape from the utilitarian, commodity orientation that often dominates our relationship with nature to the symbolic realm serving other human needs. We preserve wilderness character by our compliance with wilderness legislation and regulation, but also by imposing limits upon ourselves.

D. The legislative history of the Wilderness Act recognizes the encompassing nature of wilderness character:

We deeply need the humility to know ourselves as the dependent members of a great community of life, and this can indeed be one of the spiritual benefits of a wilderness experience. Without the gadgets, the inventions, the contrivances whereby men have seemed to establish among themselves an independence of nature, without these distractions, to know the wilderness is to know a profound humility,

to recognize one's littleness, to sense dependence and interdependence, indebtedness, and responsibility.—(See Zahniser, *The Need for Wilderness Areas*, 1956, Exhibit 8)

E. We uphold wilderness character with every decision concerning public uses, management techniques, or technologies that might degrade the wilderness condition. We strengthen wilderness character with every decision to forego actions that have no seeming physical impact, but would detract from the idea of wilderness as a place set apart, a place where our uses, convenience, and expediency do not dominate. As the role we assume shapes the character of wilderness, so it shapes our character as its stewards. (See Exhibit 3 for the complete description of wilderness character.)

2.6 *What are the principles for managing wilderness?* As stated in the Wilderness Act, the purposes of the Act are within and supplemental to the purposes of the lands we administer. We observe five key principles in managing wilderness:

A. Accomplish refuge purposes, the mission of the National Wildlife Refuge System (System), and the purposes of the Wilderness Act.

B. Secure "an enduring resource of wilderness" by maintaining the wilderness character, biological diversity, biological integrity, environmental health, and its community of life.

C. Administer wilderness areas in a manner that retains wilderness character, is compatible with all of the purposes of a refuge, and leaves them unimpaired for future use and enjoyment as wilderness.

D. Provide opportunities for primitive recreational experience, emphasizing activities that are wildlife and wilderness dependent. Maintain physical, social, and managerial settings that are conducive to maintaining the experience of solitude, inspiration, adventure, challenge, and other aspects of wilderness character.

E. Provide opportunities for and conduct wilderness-related research in a manner compatible with all of the refuge purposes and preserving the wilderness environment.

2.7 *What are the purposes of the Wilderness Act?* The purposes of the Wilderness Act are to secure an enduring resource of wilderness, to protect and preserve the wilderness character of areas within the National Wilderness Preservation System, and to administer this wilderness system for the use and enjoyment of the American people in a way that will leave them

unimpaired for future use and enjoyment as wilderness.

2.8 *How do Refuge Managers accomplish both the establishing purposes of a refuge and the purposes of the Wilderness Act?* A. The National Wildlife Refuge System Improvement Act (NWRISA) amendments to the NWRISA state that the establishing purposes of a refuge "mean the purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit."

B. The Wilderness Act states that "The purposes of this Act are hereby declared to be within and supplemental to the purposes for which national forests and units of the national park and national wildlife refuge systems are established and administered \* \* \*"

C. The NWRISA House Report 105–106 says that "This policy serves to underscore that the fundamental mission of our Refuge System is wildlife conservation: wildlife and wildlife conservation must come first."

D. Our wildlife conservation mission is entirely consistent with our wilderness responsibilities. Healthy and natural populations of wildlife are an important component of wilderness. In *Fulfilling the Promise*, the Service's long-term vision document for the System, we recognize wilderness "is a reservoir of biodiversity and natural ecological and evolutionary processes."

E. Because the Wilderness Act purposes become within and supplemental to the purposes of refuges where there is designated wilderness, we modify our management strategies to accomplish both the purposes for which the refuge was established and the purposes of the Wilderness Act. We continue to fulfill the establishing purposes of the refuge and the wildlife conservation mission of the System using management strategies and techniques that prevent degradation of the wilderness resource and comply with the requirements of the Wilderness Act. We do not authorize uses of refuge wilderness that the Wilderness Act prohibits, except when the use is the minimum requirement for the administration of the area for the purpose of the Wilderness Act or in an emergency involving the health and safety of persons.

2.9 *What activities do we prohibit in wilderness?* Section 4 (c) of the Wilderness Act prohibits certain uses in wilderness. It refers to prohibited uses by the public as well as prohibited uses

by the wilderness administrators. Section 4 (c) says:

"Except as specifically provided for in this Act \* \* \* there 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 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."

A. The Wilderness Act allows for commercial enterprises or services in wilderness when they are "necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas."

B. Subsequent wilderness legislation may permit uses of individual wilderness areas that the Wilderness Act generally prohibits, and we comply with the provisions of those laws. In Alaska, ANILCA authorizes use of motorized boats and snowmobiles, and the landing of airplanes, for public access in wilderness.

2.10 *How do we determine if a generally prohibited use is the minimum requirement to administer the area for the purposes of the Wilderness Act?* We conduct and document a minimum requirement analysis for all administrative actions that involve one or more of those things generally prohibited by the Wilderness Act, or for any proposed administrative activity that may impact the wilderness resource and character. We authorize a generally prohibited use only if we demonstrate that it is necessary to meet the minimum requirements for the administration of the area in accordance with the Wilderness Act.

A. We will use the interagency guidelines included in Exhibit 4 as procedures for assessing proposed administrative activities, to the extent that they do not conflict with this policy. In essence, these procedures allow us to answer two questions:

(1) Do I need to take some action?  
(2) How can I take the action and have the least impact?

B. The analysis helps to clearly weigh the benefits and impacts (including intangible effects on wilderness character) and the cumulative effects of the activity in conjunction with other actions and methods we are applying within the wilderness. We will document the minimum requirement analysis in writing.

2.11 *Can we use a minimum requirement analysis to allow any*

*administrative action in wilderness?* No. We consider permanent roads and most commercial enterprises prohibited uses in wilderness, and unless specific legislation authorizes their use, we will not authorize their use. We may authorize a generally prohibited use, but only after documenting the minimum requirement analysis. Administrative approval of generally prohibited actions should be temporary and rare. Only those actions that preserve wilderness character and/or have localized, short-term adverse impacts will be acceptable.

A. In Alaska, ANILCA authorizes use of motorized boats and snowmobiles, and the landing of airplanes, for public access in wilderness. Therefore, we may use motorized boats and snowmobiles for access in Alaskan wilderness without conducting a minimum requirement analysis.

2.12 *Can refuge managers take management actions in wilderness to maintain and restore natural conditions if doing so involves uses generally prohibited by the Wilderness Act?* Yes, if we determine the action to be the minimum requirement necessary to administer the area for the purposes of the Wilderness Act. Wilderness character has components of both wildness [*"A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man \* \* \*"*; Wilderness Act Sec.2(c)] and naturalness [*"\* \* \* an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions \* \* \*"*; Wilderness Act Sec.2(c)].

A. National wildlife refuges are places where we conserve wildlife and its habitat and we manage for a natural diversity of habitat and species within wilderness. If, for example, an alien species invades a refuge, it is appropriate to eliminate or control it to protect important wildlife habitat and restore biological diversity, biological integrity, and environmental health. In refuge wilderness, we use restraint and choose techniques that protect wildness by avoiding motorized methods, mechanical transport, or the use of permanent structures whenever possible. We also must assure that our management techniques are effective to protect the naturalness of the area. We do this by always conducting a minimum requirement analysis where we review the effects of proposed

actions on both wildness and naturalness.

2.13 *What effect do emergencies have on the Wilderness Act's prohibition of uses?* In an emergency involving the health and safety of persons within the wilderness, or where we must traverse wilderness to reach such persons, we may use, or authorize, motorized vehicles and equipment and mechanized transport or land aircraft. We will not need a minimum requirement analysis but should take all steps possible to respond to the emergency without unnecessarily damaging or detracting from the area's wilderness character.

2.14 *When must we conduct a minimum requirement analysis?* A. If the refuge has an approved Wilderness Management Plan (WMP) no older than 15 years, and it includes a written minimum requirement analysis for each planned administrative action that may allow a generally prohibited use (e.g., chainsaws, motorized vehicles, aircraft use, radio repeater sites, rock drills, patrol structures) or have the potential to impact wilderness resources and values, we may carry out those administrative actions explicitly as described in the plan.

The analysis in the WMP must include an estimate of how frequently each administrative action resulting in a generally prohibited use will take place. If circumstances significantly change, or we wish to allow the same nonconforming use in a different part of the wilderness, we must conduct another minimum requirement analysis. If a proposed administrative action was not identified in the WMP, and if it involves a generally prohibited use or impacts the wilderness character and resource, we must conduct a minimum requirement analysis before we allow the proposed action.

B. If the refuge does not have an approved WMP, or one older than 15 years, we must conduct a minimum requirement analysis once a year on each planned administrative action that may result in a generally prohibited use (e.g., chainsaws, motorized vehicles, aircraft use, radio repeater sites, rock drills, patrol structures) or have the potential to impact wilderness resources and values, even if it is a recurring action.

2.15 *What should we consider to determine if an action poses a significant impact to wilderness?* We must consider the full range of wilderness values and character when determining whether or not an action will have an adverse impact on wilderness. These values include the preservation of natural conditions

(including the lack of unnatural noises and lights: see Exhibit 5); cultural resource values; the assurance of outstanding opportunities for solitude; the assurance that the action will not diminish the potential for the public to have a primitive and unconfined type of recreational experience; and the assurance that we will preserve wilderness character in an unimpaired condition. Cost or convenience usually do not determine the minimum requirement.

2.16 *Who may make minimum requirement decisions?* Refuge Managers may make minimum requirement decisions only if they have attended the Arthur Carhart Wilderness Training Center national wilderness stewardship course. If managers lack this training, they must submit their written minimum requirement analyses to their supervisor for approval. If the supervisor lacks training, then the supervisor shall request review from an individual with training. In emergencies (see definition 610 FW 1.6G), Refuge Managers without the wilderness training may take appropriate action, but should take all steps possible to respond to the emergency without unnecessarily damaging or detracting from the area's wilderness character.

2.17 *How does the Leave-No-Trace Program affect our management practices?* We have adopted the interagency Leave-No-Trace (LNT) program as our standard regarding minimum impact practices for both the public and ourselves. We influence public ethics of minimum impact by the example we set in the way we conduct our business in the wilderness. We will apply LNT principles and practices to all forms of administrative actions within wilderness. See Exhibit 6 LNT Memorandum of Understanding.

2.18 *Are subsistence uses allowed in wilderness?* In Alaska, we allow subsistence uses by local, rural residents. They are the priority consumptive uses of renewable resources in refuge wilderness, per Title VIII of ANILCA.

2.19 *How will we achieve consistency in managing wilderness?* Four Federal agencies administer wilderness areas: the Fish and Wildlife Service, the Bureau of Land Management, the National Park Service, and the Forest Service. Together we administer the 104-million-acre (41.6-ha) National Wilderness Preservation System, established under the Wilderness Act "for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness."

A. We maintain effective intra-agency and interagency communications and cooperation, and encourage, sponsor, and participate in interagency training and workshops designed to promote the sharing of ideas, concerns, and techniques related to wilderness management. We support the Arthur Carhart National Wilderness Training Center and the Aldo Leopold Wilderness Research Institute.

B. We seek to achieve consistency in wilderness management objectives, techniques, and practices wherever possible. In areas where our wilderness adjoins wilderness administered by another land management agency, the Refuge Manager coordinates with adjacent wilderness units to achieve as much consistency as possible in the application of wilderness regulations and management techniques. Coordination can include, but is not limited to, programs and policy concerning the issuance of permits, group and party size, research projects, limits on campfires and pets, and other resource and visitor management issues. We encourage Refuge Managers to consider creating joint management plans with neighboring wilderness areas, where possible.

## **Fish and Wildlife Service**

### *Wilderness Stewardship*

#### Part 610

#### Chapter 3 Wilderness Administration and Natural and Cultural Resource Management in Wilderness

#### 610 FW 3.1

3.1 *What is the purpose of this chapter?* This chapter provides specific direction and guidance on wilderness administration and natural and cultural resource management in wilderness.

3.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

3.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management, are contained in 610 FW 1.3.

3.4 *What is the general policy for administering wilderness and managing natural and cultural resources in*

*wilderness?* We plan and conduct resource management activities in wilderness to conform with the Wilderness Act's purposes of securing "an enduring resource of wilderness" and providing opportunities for "solitude or primitive and unconfined types of recreation." We must document a minimum requirement analysis (see 610 FW 2) for all administrative actions that may diminish wilderness character, especially if they may involve any actions generally prohibited. We will maintain the biological diversity, biological integrity, and environmental health (see 601 FW 3) of wilderness areas. We will apply the principle of nondegradation to wilderness management, and we will measure and assess our actions against each wilderness area's own natural, unimpaired condition.

3.5 *What are the elements of wilderness administration?* A. Structures and Installations. Section 4(c) of the Wilderness Act generally prohibits structures and installations in wilderness areas.

(1) Existing structures and installations. After Congress has designated a wilderness area, we will make an inventory of all existing structures and installations. We may retain structures if we determine them to be of historic significance, essential to accomplish unit purposes, or required to ensure public safety. See 610 FW 3.7C for additional guidance regarding the management of historic structures.

(2) Removal. We will remove structures and installations that are not of historical value, not essential for wilderness administration, not essential to accomplish unit purposes, and not necessary for public safety or allow them to naturally deteriorate. If we decide to restore a site, we allow regeneration by natural succession if soil and climate conditions permit. If revegetation is necessary, we use indigenous plant species.

(3) Construction and maintenance. We will not construct or maintain an administrative structure or installation in wilderness unless it is essential to administering the area as wilderness and accomplishing refuge purposes. We will not construct or maintain structures for administrative convenience, economy of effort, or convenience to the public. Wilderness users should be self-supporting in terms of shelter. In all instances, we should design, construct, or maintain facilities using native materials that blend into the natural landscape. We may establish new structures and facilities identified in Section 1310 of ANILCA on wilderness areas in Alaska after consultation

between the head of the requesting Federal agency and the Secretary, and in accordance with such terms and conditions as mutually agreed upon to minimize the adverse effects of such structures and facilities.

(4) Lighthouses. Wilderness status does not alter the U.S. Coast Guard's right to access and operate lighthouses; however, we may allow use of motorized vehicles only if we approve them after documenting a minimum requirement analysis.

B. Roads. Permanent roads are a prohibited use in wilderness [Wilderness Act, Section 4(c)]. We will evaluate all roads in existence at the time of wilderness designation in the unit's Comprehensive Conservation Plan or Wilderness Management Plan (WMP). We may convert roads within wilderness to trails for walking or nonmotorized, nonmechanized transportation or restore them to natural conditions. If we decide to restore a road, we allow regeneration by natural succession, if soil and climate conditions permit. If revegetation is necessary, we will use indigenous plant species.

C. Unpaved Trails. We may provide unpaved trails and trail bridges only where they are essential for resource protection or where significant safety hazards exist during normal use periods. We will design and locate trail improvements to fit into the wilderness landscape as unobtrusively as possible and construct them of native materials. We will determine the need for trail improvements and maintenance through minimum requirement analyses and include them in the WMP for the unit.

D. Motorized Vehicles, Motorized Equipment, and Mechanical Transport. We generally prohibit motorized vehicles and equipment and mechanical transport in wilderness areas [Wilderness Act, Section 4(c)]. We will not use or allow the use of motorized vehicles or equipment or mechanical transport in wilderness unless they are essential to administer the area as wilderness and accomplish refuge purposes, ensure public safety, or to conserve threatened or endangered species, as determined by a minimum requirement analysis. We will not use such equipment or transport for administrative convenience, economy of effort, or convenience to the public. The applicable provisions of ANILCA govern the use of motorized equipment by the public in wilderness areas in Alaska.

#### E. Public Access.

(1) Inholdings. We will provide adequate legal access to non-Federal land that is effectively surrounded by wilderness, using routes and modes of

travel causing the least impact to the wilderness area while allowing for the reasonable purposes for which we hold or visitors use the inholding (see ANILCA and 43 CFR 36 for provisions specific to Alaska). If alternate access is available through nonwilderness lands, we will not allow access through wilderness (other than access generally available to the public). We will pursue voluntary land exchanges, purchases, or donations to consolidate ownership where access to inholdings would be detrimental to wilderness character or values.

(2) Alaska. On wilderness lands in Alaska, we will permit the use of snowmobiles, motorboats (excluding airboats), fixed-wing aircraft, and nonmotorized surface transportation methods for access to traditional activities and for travel to and from villages and homesites, subject to reasonable regulations to protect the land's natural and other values (Sections 811 and 1110 of ANILCA and 50 CFR § 36.12). We will issue appropriate notice and hold public hearings on restrictions on these forms of access in the vicinity of the affected area. Such rights are subject to reasonable regulations to protect resource values.

(3) Access for People With Disabilities. The Americans With Disabilities Act of 1990 (Section 507(c), 104 Stat. 327, 42 U.S.C. 12207) reaffirms that nothing in the Wilderness Act prohibits wheelchair use in a wilderness area by an individual whose disability requires the use of a wheelchair. Consistent with the Wilderness Act, we are not required to provide any form of special treatment or accommodation, to construct any facilities, or to modify any conditions of lands within a wilderness area to facilitate such use. In meeting the goal of accessibility, we will ensure that we will afford persons with disabilities experiences and opportunities with other visitors to the greatest extent practicable. We will also work with commercial guides and outfitters to ensure they meet accessibility standards when offering services in refuge wilderness.

F. Commercial Uses. Sections 4(c) and 4(d)(5) of the Wilderness Act prohibit commercial enterprises or services in wilderness, unless such activities are "necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas."

(1) Guiding and Outfitting. We may authorize wilderness-dependent commercial services, such as guiding and outfitting, if we determine that they are necessary for the public enjoyment of wilderness, provide opportunities for

primitive and unconfined types of recreation, preserve the wilderness character of the land, are not in conflict with unit purposes, and are managed in concert with our policies (see 604 FW 2). We will ensure that commercial operators comply with established "Leave No Trace" protocols. We will allow only temporary structures and facilities necessary to support wilderness recreation. We prohibit the storing of permanent equipment and supply caches in wilderness areas by commercial operators. In Alaska, ANILCA authorizes the use of temporary campsites, tent platforms, shelters, and other temporary facilities related to the authorized taking of fish and wildlife if they are not detrimental to unit purposes or the wilderness character of the area. This includes temporary facilities used by guides, outfitters, commercial fishermen, and transporters. Permittees must construct, use, and maintain such facilities and equipment in a manner consistent with the protection of the wilderness character of the area, subject to provisions of ANILCA 1316 (b). Permittees must construct any new facilities with materials that blend with the landscape. We will manage such facilities through Special Use Permits.

(2) Grazing. We generally prohibit commercial livestock grazing in wilderness. We may permit livestock grazing in wilderness areas as a habitat management tool only when it is the minimum requirement to administer the area as wilderness [see 610 FW 2.9]. We prohibit the use of motorized vehicles, motorized equipment, or mechanical transport, except as provided for in 610 FW 2.8. For those wilderness areas where the establishing legislation permits continuation of an existing commercial livestock grazing program, grazing activity will not be curtailed or eliminated solely because the area is included in the wilderness system. In those instances, commercial livestock grazing programs will be managed to minimize impacts and to protect resource values.

(3) Photography and Filmmaking. We prohibit commercial filming and commercial photography in wilderness areas unless we determine it is necessary and proper for providing educational information about wilderness uses, resources or values, or other wilderness purposes. In cases where we allow commercial photography, we will manage it through an audiovisual productions permit. See 120 FW 1 and 2, 605 FW 5, and 43 CFR 5.1 for additional guidance.

G. Rights-of-Way. We will terminate or phase out granted or existing rights-

of-way included in wilderness whenever possible. Where it is not possible, we may renew rights-of-way subject to our control only under conditions outlined in the refuge's WMP that protect wilderness character and resources and limit the use of motorized or mechanical equipment. We will not issue any new rights-of-way or expand any existing rights-of-way in wilderness, except in Alaska, as provided for under Title XI of ANILCA (see also 43 CFR 36).

H. Mineral Exploration and Development. We prohibit mineral exploration or development in wilderness, except where valid rights existed prior to wilderness designation. We should remove or extinguish mining claims and non-Federal mineral interests in wilderness through authorized processes including purchasing valid rights. We will not apply this policy to contravene or nullify valid rights vested in holders of mineral interest on our wilderness areas. All claimants must comply with reasonable conditions for the protection of wilderness values. Claimants must conduct mineral development or exploration activities without interfering with the administration of the wilderness or disturbing wildlife, or its habitat. Claimants must confine use and occupation of the area to the minimum necessary for conducting efficient mineral operations. Persons conducting mineral operations must comply with all applicable Federal and State laws and regulations. When claimants complete operations, they will restore the area to its previous condition, including removing all structures and equipment from the area.

(1) In Alaska, Section 1010 of ANILCA requires the Secretary to assess oil, gas, and other mineral potential on all public lands, including wilderness. The mineral assessment program may include, but is not limited to, techniques such as side-looking radar and core and test drilling but does not include exploratory drilling of oil and gas test wells. Any assessment activity must be determined to be compatible before it is permitted.

I. Geographic Naming in Wilderness. The attachment of official, permanent names to mountains and other natural features represents a human intention to influence and dominate how they are perceived—in a landscape that symbolically represents freedom from human influence and dominance. Since place names diminish this aspect of wilderness character, we will not propose to the U.S. Board of Geographic Names, nor support proposals by others, to apply names to geographic features within wilderness. We may name new

wilderness refuges and new wilderness areas within refuges, but we will neither propose nor support naming them after any person. See 040 FW 2 2.7 (C).

3.6 *How do we protect natural resources in wilderness?* A. Research. The scientific value of wilderness derives from its relatively undisturbed condition. Because such undisturbed natural areas increasingly are rare, wilderness areas often provide unique opportunities for scientific investigation. All persons associated with research in wilderness must know and understand the purposes, provisions, and values of wilderness. We will not allow or engage in research that significantly disrupts wilderness conditions or character.

(1) We may allow scientific research consistent with protecting wilderness character when:

- (a) Suitable locations outside wilderness are not available;
- (b) It furthers the management, scientific, and educational purposes of the area;
- (c) The possible benefits outweigh the negative impacts on wilderness values; and
- (d) It is carried out in a manner respectful of wilderness character and values.

(2) We will not allow the use of motorized equipment or vehicles, mechanical transport, structures, installations, or monitoring devices and methods, unless:

- (a) Alternative methods are not available;
- (b) They represent the minimum requirement;
- (c) They are consistent with the unit's WMP; and
- (d) They are compatible with the unit's purposes.

(3) We will evaluate research using a minimum requirement analysis. We must include research activities in the unit's WMP.

(a) We may use fixed-wing aircraft to conduct approved research and management surveys. We will allow the use of helicopters and the landing of aircraft only when supported by a minimum requirement analysis. However, we may immediately authorize aircraft or helicopter landings in emergencies related to health and safety. We should conduct our aircraft operations over wilderness areas at an altitude greater than 2,000 feet (600 m) above ground level whenever possible. We must be respectful of the area's wilderness character and minimize disturbance to wildlife and other users when using aircraft. We should consider time of day, season, route, and flight altitude when planning our activities.

(4) In Alaska: ANILCA authorizes motorized boats, snowmobiles, and the landing of fixed-wing aircraft for public access to wilderness (subject to reasonable regulations to protect the natural and other values of the unit.) We may use motorized boats, snowmobiles, and fixed-wing aircraft for access in Alaskan wilderness without conducting a minimum tool analysis. We select landing areas to avoid surface disturbance.

B. Inventory and Monitoring. Long-term wilderness management depends upon the inventory and monitoring of wilderness resources, including fish, wildlife, habitat, vegetation, air, water, archaeological resources, and public use. We should conduct baseline inventories for key wilderness resources and identify any threats to the wilderness area. Baseline data provides the frame of reference for the thresholds and indicators identified in the WMP that may trigger use limitations. Inventories also provide us with the information necessary to evaluate the effects of management actions, public uses, and external threats on wilderness resources. We should conduct inventories using a minimum requirement analysis and in accordance with 701 FW 2. We should include inventory and monitoring in the unit's WMP.

C. Habitat and Species Population Management. We manage refuge wilderness to maintain and restore the natural features and processes affecting the components of an area's ecological integrity: biological diversity, biological integrity, and environmental health. We manage refuge wilderness to maintain components of natural biological diversity such as wildlife populations with natural densities, social structures, and dynamics. Major ecosystem processes including wildfire, drought, flooding, windstorms, pest and disease outbreaks, and predator/prey fluctuations are natural ecological and evolutionary processes. We will not interfere with these processes or the wilderness ecosystem's response to such natural events. However, in some cases these processes may become unnatural, such as excess fuel loads from fire suppression activities, predator/prey relationships disrupted by the control of carnivores, or the invasion of alien species. In such cases, we encourage the restoration or maintenance of ecological integrity and wilderness character. All decisions to modify habitat, species levels, or natural processes by the methods or practices listed below must be necessary to accomplish the purposes of the refuge and the Wilderness Act; supported by a minimum requirement

analysis; and documented in the WMP. Generally, we will modify habitat, species population levels, or natural ecological processes in refuge wilderness only when such actions: maintain or restore ecological integrity; correct or alleviate negative impacts to wilderness character caused by human influence; are necessary to protect or recover a threatened or endangered species; or address an emergency involving the health and safety of persons within or outside the wilderness.

(1) Fire. We may use fire in wilderness subject to the above criteria (see 610 FW 5 and 621 FW 1–3 for additional guidance).

(2) Grazing. We may permit livestock grazing in wilderness areas as a habitat management tool only when it is the minimum requirement to administer the area as wilderness and essential to accomplish refuge purposes.

(3) Transplanting, Reintroducing, or Stocking Fish and Wildlife. We will not transplant, introduce, or reintroduce any species into a wilderness area where they are not indigenous or into bodies of water that are naturally barren (see 601 FW 3). We will determine through consultation with the appropriate State agency which indigenous species we will use for stocking. We will use local genetic strains whenever possible. We will give preference to species extirpated by human-induced causes. We may continue to manage species traditionally stocked before wilderness designation only if they meet the criteria established above. We will not use fertilizers to artificially enhance fisheries or other wildlife resources.

(4) Control of Invasive Species, Pests, and Diseases Through Integrated Pest Management (IPM). Where invasive species pose a threat to the integrity of the wilderness ecosystem or where the lack of control would result in unacceptable impacts on other wilderness resources (including threatened or endangered species), we take steps to control them. Where pests and diseases pose a significant threat to the health of humans or wildlife as identified by the Centers for Disease Control, or where the lack of control would result in unacceptable impacts on other wilderness resources (including threatened or endangered species), we may take steps to control them. We will not control invasive species, pests, and diseases, including mosquitoes, for administrative convenience, economy of effort, or convenience to the public.

(5) We will use integrated pest management to prevent, control, or

eradicate alien species, pests, and diseases subject to the criteria listed above. We will determine appropriate IPM procedures through a minimum requirement analysis and document them in the WMP. If the approved IPM plan determines that chemical or biological applications are necessary, we will only use agents that have the least impact on nontarget species and on the wilderness environment in compliance with 7 RM 14.1–8 and 7 RM 8.6–8. We may make an exception to 610 FW 3.6 Cc for approved nonindigenous biological control agents. We will conduct invasive species, pest, and disease control in wilderness in a manner consistent with protecting wilderness character and values and only if compatible with refuge purposes.

(6) Predator Control. Predators are a natural and important component of the wilderness ecosystem and should be free from unregulated human interference. Rarely, predator control may be necessary for the protection of threatened or endangered species. In such cases, we may control predators subject to the above criteria and only when strong evidence exists that the proposed action will correct or alleviate the problem. We will direct control at the individual animal(s) causing the problem using the method least likely to harm nontarget species and wilderness visitors.

D. Air Quality Protection. Maintaining the wilderness character and values of an area requires proper management of air resources.

(1) Clean Air Act (CAA). Congress passed the CAA to protect both human health and the environment and provide protection of air quality in wilderness areas by means of national standards for air quality and the Prevention of Significant Deterioration (PSD) program (see also 561 FW 2.1). The PSD program designated 21 of our wilderness areas as mandatory Class I air quality areas, including all wilderness areas over 5,000 acres (2,000 ha) in existence on August 7, 1977. The CAA gives Class I areas the highest level of protection from air pollutants. The CAA designates and protects other wilderness and nonwilderness areas as “Class II,” but not to the extent of Class I areas. The CAA charges the Federal Land Manager (the Assistant Secretary of the Interior for Fish and Wildlife and Parks) and the Service with an “affirmative responsibility” to protect the air quality related values of Class I lands. Air pollution, including visibility, wildlife, vegetation, soil, water, and geological and cultural resources may adversely affect air quality related values (ARQV). We will identify the ARQV of each

wilderness area and evaluate their sensitivity to air pollution in the WMP.

(2) Visibility. The CAA grants special protection to visibility in Class I areas. The CAA establishes a national goal of remedying any existing and preventing any future, human-caused visibility impairment in mandatory Class I areas. The Environmental Protection Agency (EPA) established the Regional Haze regulations as part of their strategy to meet this goal, requiring the States to make “reasonable progress” towards natural visibility conditions. We will work with the EPA and the States to identify natural visibility conditions and set reasonable progress goals for visibility improvement in Class I areas. We may conduct monitoring with samplers sited on adjacent nonwilderness land to characterize current visibility and air quality conditions in wilderness areas.

(3) External Pollution Sources. Sources outside the wilderness, including powerplants, industries, and automobiles, are the usual cause of air pollution in wilderness areas. To ensure the protection of ARQV from these external sources, we will participate in State and local planning and permitting processes, including the review of air pollution permit applications for major new sources or modifications of existing sources of air pollution. We will also review the National Environmental Policy Act documents for projects with the potential to affect wilderness areas. In consultation with the EPA, State, or local agencies, we will determine whether air pollutant emissions from a proposed action will adversely affect air quality-related wilderness values and work to minimize or eliminate such adverse impacts.

(4) Internal Pollution Sources. Emissions also can come from sources within wilderness areas, notably fire. We may use fire as a tool to restore and maintain healthy wilderness ecosystems. However, we must balance the use of fire with our responsibility to protect visibility and other ARQV in Class I areas and wilderness (see 610 FW 5, and 621 FW 1–3 for additional guidance).

3.7 *How do we protect cultural resources in wilderness?* Cultural resources, such as archaeological sites, historic trails and structures, and sacred sites are unique and nonrenewable parts of the wilderness resource. We follow policy and standards for identifying, evaluating, protecting, and managing cultural resources in the FWS Manual, Part 614 FW 1–5.

A. Burial and Sacred Sites. We may maintain burial sites or cemeteries located within a wilderness area, but we

prohibit new interments unless authorized by Federal statute, existing reservations, or retained rights. We will identify and protect Native American sacred sites or religious areas. We will allow Native American practitioners access to these sites within wilderness areas for religious and traditional ceremonial purposes in accordance with wilderness access regulations and procedures and the Service’s sacred sites protection policy.

(1) We will notify and consult appropriate tribal leaders as early as possible in planning for wilderness management decisions that may affect sacred sites and practice of Native American religion. The American Indian Religious Freedom Act of 1978, 42 U.S.C. 1996 and 1996a; Executive Order 13007, “Protection of Sacred Sites;” and Service policy mandates this consultation. We must coordinate consultation through the Regional Historic Preservation Officer and Regional Native American Liaison.

B. Research. We will encourage archeological research employing noninvasive and nondestructive survey and inventory methods. The Refuge Manager and the Regional Historic Preservation Officer will review proposals for archeological research. The Regional Director approves or denies archaeological research permits based upon the recommendation of the Refuge Manager and regional archeologist. We will only approve archeological research requiring digs, trenching, or other forms of excavation in wilderness when required to protect a threatened resource or when the applicant can demonstrate the need for important data. Such research is subject to a minimum requirement analysis.

C. Historic Buildings and Structures. We will comply with cultural resource management requirements and policies when maintaining, using, or removing historic buildings and structures and will support our decisions with a minimum requirement analysis. We must consult with the Regional Historic Preservation Officer and adhere to the requirements covered by Sections 106 and 110 of the National Historic Preservation Act, and the regulations in 36 CFR 800, for any work affecting historic buildings and structures. The Regional Preservation Officer is responsible for determining if such properties are listed in or eligible for the National Register of Historic Places and for performing consultation with the appropriate State Historic Preservation Officer and the Advisory Council on Historic Places. For buildings and structures that are eligible for or listed in the National Register, and which we

choose to use or maintain, we will follow the minimum requirement policy and the Secretary of the Interior Standards for the Treatment of Historic Properties. See 610 FW 3.5.A above for additional information regarding structures and installations.

## Fish and Wildlife Service

### *Wilderness Stewardship*

#### Part 610

#### Chapter 4 Public Use Management

#### 610 FW 4.1

4.1 *What is the purpose of this chapter?* This chapter provides specific direction and guidance on managing public use in wilderness. You can find additional guidance for general public use management in Appropriate Uses 603 FW 1 and Priority Wildlife-Dependent Recreation 605 FW 1.

4.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

4.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management, are contained in 610 FW 1.3.

4.4 *What are our general public use guidelines for wilderness?* We will provide opportunities for compatible use and enjoyment of wilderness areas in a manner that will preserve their wilderness character and that will "leave them unimpaired for future use and enjoyment as wilderness" [The Wilderness Act: Sec 2 (a)]. We may prescribe appropriate conditions or restrictions upon any authorized activity as necessary to preserve wilderness resources and character.

A. We will emphasize providing "opportunities for solitude or a primitive and unconfined type of recreation" [The Wilderness Act: Sec. 2 (c)]. Visitors whose experience depends on wilderness conditions have the fewest number of settings to accommodate their use, while those whose use is not dependent on wilderness conditions have a greater range of alternatives. Where use conflicts occur, or when we must limit the number of visitors, we will give preference to those uses most dependent

on wilderness conditions. Uses that are both wildlife and wilderness-dependent will receive highest priority.

B. Priority for public uses on wilderness portions of a refuge are:

(1) Compatible, wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) practiced so as to preserve wilderness character; and

(2) Other compatible and appropriate, wilderness-dependent recreation.

4.5 *What are appropriate recreational uses in wilderness?* Where compatible, the priority public uses of the System (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) are appropriate in refuge wilderness. In refuge wilderness, these uses are nonmotorized activities which involve no mechanical transport.

A. Other forms of wilderness-dependent recreational activities, such as hiking, canoeing, or crosscountry skiing, allow visitors to experience and observe wildlife and its habitat in a wilderness context. These activities provide opportunities to experience the physical, psychological, symbolic, and spiritual values of wilderness under conditions that include risk and challenge that rewards self-reliance and a spirit of exploration with discovery and adventure. Such wilderness-dependent recreation may be appropriate in refuge wildernesses when we determine it to be compatible with the refuge purposes and when it does not conflict with the priority public uses of the System or other policies for managing public uses of the System.

4.6 *What activities have we identified to prohibit or otherwise specifically regulate in wilderness areas?* A. The Wilderness Act defines prohibited uses in Sec. 4. (c).

B. Extreme and Thrill Sports. We prohibit the various forms of hang gliding and other recently developed thrill-oriented activities that do not depend on a wilderness setting.

C. Grazing Packstock. We may authorize noncommercial grazing of trail stock incidental to recreational use of wilderness in accordance with the conditions, outlined in the Wilderness Management Plan (WMP), that ensure protection of wilderness resources such as requiring that "weed free and weed-seed free" supplemental feed accompany all overnight use of pack animals, or prohibiting certain types of feed which could introduce invasive species.

D. Competitive Events. We prohibit competitive events that are not

consistent with wilderness character, that may intrude on solitude, or are not dependent on a wilderness setting. Prohibited events include animal, foot, or watercraft races, endurance contests, competitive trail rides, organized survival exercises, and war games. We may make exceptions for preexisting and historically significant events, like the Iditarod sled dog race in Alaska, as long they do not degrade wilderness resources.

E. Flightseeing. Aerial sightseeing, aerial wildlife viewing, and aerial photography (collectively referred to as "flightseeing") are activities at variance with the purpose of wilderness and often result in unacceptable wildlife disturbance. Although we lack jurisdiction over airspace, we will not encourage flightseeing and will work with the Federal Aviation Administration to encourage pilots to conduct overflights above 2,000 feet (600 m) above ground level. We will enforce provisions of the Airborne Hunting Act that prohibit harassment of wildlife by aircraft. Wilderness administrators should monitor and document low-level aircraft activity.

F. Other Public Uses. We will manage other public uses not specifically mentioned above in accordance with Service wilderness, compatibility, appropriate refuge uses and wildlife-dependent recreation policies and the National Wildlife Refuge System Administration Act, as amended. In Alaska, ANILCA covers subsistence use, and we address it in 610 FW 2.17.

G. Alaska. In Alaska, the public may continue to use previously existing public use cabins. We may construct, maintain, or replace public use cabins subject to restrictions necessary to preserve the area's wilderness character. ANILCA Section 1315(d) requires the Secretary to notify the House and the Senate authorizing committees of our intention to remove an existing or construct a new public use cabin or shelter in wilderness.

(1) The use of temporary campsites, tent platforms, shelters, other temporary facilities and equipment directly related to the taking of fish and wildlife may continue. We must construct new facilities of materials that blend and are compatible with the surrounding landscape. However, ANILCA Section 1316(b) provides that we may, after adequate notice, deny establishment and use of new facilities for these activities if we determine them to be a significant expansion of existing facilities or uses which would be detrimental to the unit's purposes, including wilderness values.

4.7 *How can we best preserve a quality wilderness experience and the wilderness itself?* We should maximize the visitor's autonomy and isolation from the influences of the mechanized and settled outside world. Management actions, necessary facilities, and on-site presence shall be as unobtrusive and subtle as possible, consistent with the overriding criteria of maintaining wilderness condition and character. We generally prefer information and education over direct management approaches such as regimentation and regulation. However, permit systems, group size limitations, and other rules may be necessary to ensure protection of both the wilderness experience and wilderness resource. The WMP will evaluate the fragility of wilderness resources, estimate expected visitation and potential impacts, establish monitoring methods, describe desired conditions, and provide indicators that will trigger action to prevent impacts. For instance, the refuge should identify specific areas essential to wildlife species sensitive to human disturbances and initiate visitor-use controls in critical areas or during critical periods of the year when necessary.

4.8 *How should we manage for solitude?* We should strive to minimize the presence of modern artifacts of civilization, such as signs, bridges, facilities, and technology; large groups; and conflicting uses that tend to interfere with one's free and independent response to nature. We should employ survey methods to evaluate visitor experiences related to solitude and correct deficiencies where we have ability to improve that experience.

4.9 *How do we manage for visitor safety in wilderness?* The wilderness visitor has an increased responsibility for their own safety in wilderness areas. Where the wild has not been taken out of the wilderness, there are risks. We will not modify wilderness areas to eliminate risks normally associated with wilderness travel. We should provide visitors general information about the unpredictable nature of risks inherent in wilderness, including potential dangers related to isolation, terrain, water, wildlife, and weather. We should provide site-specific information with caution to avoid the implication that we have identified all potential hazards. Information on risks and recommended precautions will emphasize that safety is the visitor's responsibility and that the freedom, independence, and self-reliance of the wilderness experience requires proper mental, physical, and material preparation. We must remain prepared to respond appropriately to

emergencies related to public safety, including conducting or assisting State or local agencies with search and rescue functions. However, we must not convey the impression that assistance is readily available in all situations.

4.10 *How do we inform and educate the public about wilderness?* Each refuge containing a wilderness area should develop an information and education program designed to increase awareness and appreciation of the full spectrum of wilderness values, without stimulating unacceptable demand for use. The program should focus on providing information that enhances the experience, describes the limitations of wilderness to accommodate use, encourages visitors to practice Leave-No-Trace (LNT) techniques, properly prepares potential visitors for wilderness challenges, and generally stimulates cultivation of a personal ethic based on a willingness to exercise self-restraint in the interest of other users and future generations. Implementation of thoughtful information materials and interpretive programs can be the most effective tool for protecting the wilderness. Where appropriate, we also should produce brochures and other interpretive and information materials for the non-visiting public who may want to learn about wilderness and simply finds pleasure in just knowing that it is there. Development of information and educational materials should be guided by the *Primary Interpretive Themes for Wilderness Education* adopted by the Service (Exhibit 7 Interpretive Themes), FWS Publications Guidelines, Environmental Education Policy (605 FW 6), and Interpretation Policy (605 FW 7). Wilderness education curriculum materials are available through the Arthur Carhart National Wilderness Training Center; and Leave No Trace (LNT) curriculum materials, skills and ethics guides, and training are available through LNT, Inc. We strongly influence public education and wilderness ethic formation by the way we conduct our business in the wilderness. We must always be aware of the message our activities convey about appropriate wilderness behavior, norms, and attitudes.

4.11 *How do we implement the Leave No Trace program?* A. The LNT program promotes and inspires responsible outdoor recreation through education, research, and partnerships. LNT, Inc., a nonprofit organization, manages the program. The National Outdoor Leadership School (NOLS) maintains the educational component of LNT. The four Federal wilderness management agencies have adopted the

LNT program through a Memorandum of Understanding (Exhibit 6, LNT Memorandum of Understanding) as our standard regarding minimum impact practices for both the public and ourselves.

B. We apply LNT principles and practices to all forms of recreation management within wilderness, including commercial operations. As an educational program, the LNT program offers managers a tool for dealing with issues and impacts. We should limit interpretation of wilderness to off-site locations, except as needed to protect visitor health and safety or to protect the wilderness resource. However, we may conduct educational programs, such as LNT training or interpretative walks, inside the wilderness area when deemed appropriate to help foster a better understanding and appreciation of wilderness. Such programs should remain sensitive to the wilderness resource, wilderness character, and the experience of other users.

4.12 *How do we monitor public use in wilderness?* A. We will monitor those conditions and long-term trends of wilderness resources that are necessary to identify the effects of both public activities and management actions and the need for corrective actions. We will monitor to ensure that our actions and visitor impacts on wilderness resources and character do not exceed standards and conditions established in an approved WMP. As appropriate, wilderness monitoring programs may assess physical, biological, and cultural resources, social/psychological conditions, and wilderness user demographics. Monitoring programs may also need to assess the effect of actions that originate outside the wilderness in order to determine the nature, magnitude, and probable source of those impacts.

B. Limits of Acceptable Change (LAC) is one framework designed for establishing indicators, standards, and desired conditions. While we commonly use LAC to manage recreational use of wilderness, the concept applies to any factor that can influence or change desired conditions, including fire, grazing, mining, or impacts on air quality. [See Hendee, Stankey, and Lucas (1990) in Exhibit 8 References.] We discuss other means of monitoring visitor impacts in Priority Wildlife Dependent Recreation 605 FW 1-7 and will describe them in the refuge's approved CCP, WMP, or Public Use Plan.

4.13 *Do we allow public use structures and facilities in wilderness?* We prohibit permanent structures and facilities in wilderness unless they are:

A. The minimum requirement necessary to administer the area for the purposes of the Wilderness Act and accomplish refuge purposes;

B. Essential to protect the health and safety of visitors; or

C. Listed or eligible for listing in the National Register of Historic Places [See 610 FW 3.7C].

D. Bridges. We will select bridge locations to minimize their size and complexity. We must construct them of native or native-appearing materials that blend with the environment. We must also construct them according to our construction standards and maintain them for safety.

E. Campsites. Campsites may include a site marker, fire rings, tent sites, animal-resistant food-storage devices and primitive toilets when we need these facilities to protect wilderness resources or human health and safety. We may provide bear-resistant food containers in locations where bear encounters are likely. We place toilets only in locations where their presence will resolve health and sanitation problems or prevent serious resource impacts, especially where reducing or dispersing visitor use is impractical or has failed to alleviate the problem. We encourage the use of cooking stoves. We do not provide picnic tables in wilderness. We will consult the LNT Outdoor Skill and Ethics Guide appropriate for each wilderness habitat to determine the best campfire policy. If we allow campfires and the use of fuel wood from within the wilderness as authorized in a WMP, we will limit wood cutting to dead and down material.

F. Hunting and Photography Blinds. We may allow the use of simple screens made of dead and down natural material found in the locale, if the user dismantles them at the end of each use period. The user must carry in and out commercially built, artificial blinds. We prohibit permanent blinds.

G. Signs. We may use signs only if they meet the criteria listed above (4.13 A–C), to identify routes and distances. We will not use signs to mark streams, lakes, mountains, or other points of interest. Signs will be compatible with their surroundings and the minimum size. In waterways, signs will meet all Coast Guard or appropriate State requirements. We may also use signs to mark wilderness boundaries.

H. Trails and Trail Structure Maintenance. We should include an inventory of the wilderness trail system as an integral part of the wilderness management plan. We will maintain trails at levels and conditions identified within the plan. We will administer

historic trails according to approved cultural resource plan requirements.

4.14 *How do we address special needs for persons with disabilities in wilderness?* A. Nothing in the Wilderness Act prohibits the use of a wheelchair in a wilderness area by an individual whose disability requires use of a wheelchair. No agency must provide any form of special treatment or accommodation, or construct any facilities or modify any conditions of lands within a wilderness area to facilitate such use. (Americans with Disabilities Act of 1990 (ADA): Section 507(c), 104 Stat. 327, 42 U.S.C. 12207).

B. The Service has legal obligations to make available equal opportunities for people with disabilities in all of our programs and activities. This requirement includes the opportunity to participate in wilderness experiences. Management decisions responding to requests for special consideration to provide for wilderness use by persons with disabilities must be in accord with the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973 (amended in 1978) and Section 507(c) of the Americans with Disabilities Act of 1990. Such decisions should balance the intent of the access and wilderness laws and find a way to provide the highest level of access for the disabled with the lowest level of impact on the wilderness resource.

C. The Secretary of the Interior's regulations regarding "Nondiscrimination in Federally Assisted Programs in the Department of the Interior" (43 CFR part 17) require that the Service will operate all programs and activities so that they are accessible to and usable by persons with disabilities to the greatest extent practicable. However, 43 CFR 17.550 does not require agencies to take any actions or provide access that would result in a fundamental alteration in the nature of a program or activity. The agency subsequently has the burden of proving that compliance would result in a fundamental alteration.

D. While the Service is not required to provide any special treatment to provide access for persons with disabilities who use wheelchairs, managers should explore solutions for reasonable accommodations when not in conflict with the Wilderness Act (e.g., barrier-free trails, accessible campsites). Any facilities, built or altered, must meet current accessibility guidelines.

E. We allow wheelchairs in wilderness if they meet the definition in the ADA. The intent of this definition is that a wheelchair is a person's primary mode of locomotion, manual or electric, that is suitable for use in indoor

pedestrian areas. This definition will also ensure that we reasonably accommodate persons using wheelchairs in wilderness without compromising the wilderness resource and its character.

F. A publication entitled "Wilderness Access Decision Tool" (available from the Arthur Carhart National Wilderness Training Center) provides further guidance in assisting managers in making appropriate, objective, and consistent decisions regarding the use of wilderness areas by persons with disabilities.

## Fish and Wildlife Service

### Wilderness Stewardship

#### Part 610

#### Chapter 5 Fire Management

#### 610 FW 5.1

5.1 *What is the purpose of this chapter?* This Chapter establishes policy for fire management in wilderness areas.

5.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

5.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management, are contained in 610 FW 1.3.

5.4 *What is our general policy for managing wilderness fires?* All fires on our wildlands, including wilderness areas, are either wildland or prescribed fires. Wildland fires and their effects are inherent parts of the ecological and evolutionary processes of wilderness. We will not interfere with the wilderness ecosystem's recovery response to these effects. We manage prescribed and wildland fires to achieve wilderness objectives included in an approved Fire Management Plan (FMP). We will appropriately respond to all wildland fires in accordance with the minimum requirement concept (610 FW 2). We must identify and address wilderness character and values to be protected, desired fire regime, and specific fire management considerations in the Wilderness Management Plan.

A. Firefighter and public safety is always the first priority on all wildland fire operations. The Manual chapter on

Fire Management (621 FW 1–3) contains specific guidance on fire management policy, fire management plans, and prescribed burning. The chapter on Emergency Operations (095 FW 3) contains policy on wildland fire suppression. The Fire Management Handbook contains detailed guidance on FMP development.

B. We will conduct fire management planning, preparedness, wildland and prescribed fire operations, monitoring, and research on an interagency basis with the involvement of all partners.

5.5 *How do we manage wildland fire?* A. The principal wildland fire use objective in wilderness is to allow fire to play its natural role in the ecosystem. We may use wildland fire to achieve resource objectives as long as we include prescriptive criteria for wildland fire use in an approved FMP.

B. If we decide to suppress the fire, we determine the appropriate management response by selecting the least-cost options for suppression that also preserve the wilderness character and values. Firefighter safety and the minimum requirement concept will be the guiding factors in determining the appropriate suppression response and strategy. We will identify the appropriate minimum impact suppression standards in the FMP and develop them in conjunction with the fire management officer.

5.6 *How do we manage prescribed fire?* A. We may use prescribed fire within the wilderness area to fulfill unit purposes and the System mission and goals where fire is a natural part of the ecosystem only if it:

- (1) Corrects or alleviates adverse impacts to the wilderness character and ecological integrity caused by human influence; or
- (2) Is necessary to protect or recover a threatened or endangered species; and
- (3) Is supported by a minimum requirements analysis.

B. We must include prescribed fire use within the wilderness in an approved FMP, and we must develop a Prescribed Fire Plan for any prescribed fire. We will append the FMP to the Wilderness Management Plan.

C. We should plan prescribed fire to minimize impacts on visibility during periods of heavy visitor use as well as to avoid adverse effects on other air-quality-related values.

## Fish and Wildlife Service

### Wilderness Stewardship

#### Part 610

#### Chapter 6 Wilderness Management Planning

##### 610 FW 6.1

6.1 *What is the purpose of this chapter?* This chapter provides guidance on developing Wilderness Management Plans.

6.2 *To what does this chapter apply?* This chapter applies to Congressionally designated wilderness. Where this management guidance conflicts with provisions of legislation establishing wilderness on refuges, (including the Alaska National Interest Lands Conservation Act (ANILCA) in Alaska), the provisions of the legislation establishing wilderness take precedence. (See Exhibit 1; National Wildlife Refuge System Designated Wilderness Areas).

6.3 *What are the authorities that directly affect wilderness management on our lands?* Our authorities to manage wilderness, or those which may affect wilderness management, are contained in 610 FW 1.3.

6.4 *What is a Wilderness Management Plan (WMP)?* The WMP guides the preservation, management, and use of a particular designated wilderness. The WMP describes goals, objectives, and management strategies for the wilderness area based on the refuge or unit's purpose(s), System mission, and wilderness management principles. It contains specific, measurable management objectives that address the preservation of wilderness-dependent cultural and natural resource values and conditions. The WMP must clearly show the strategies and actions we will use and implement to preserve the wilderness resource, and the linkage between those strategies and actions and the wilderness objectives. It also contains indicators, standards, conditions, or thresholds that define adverse impacts on the wilderness character and values and will trigger management actions to reduce or prevent them. We will develop WMPs in coordination with State wildlife agencies and with public involvement.

6.5 *How does the WMP relate to the Comprehensive Conservation Plan (CCP)?* The WMP is a form of step-down management plan (602 FW 1.6 and 602 FW 4). The WMP provides detailed strategies and implementation schedules for meeting the broader wilderness goals and objectives identified in the CCP. WMPs are developed following the planning

process guidance in 602 FW 1 and 602 FW 3 (602 FW 4).

6.6 *Does every wilderness area need a WMP?* We will describe the management direction for each designated wilderness either in a WMP or as part of a CCP (602 FW 3). We should address each wilderness as a separate management area.

6.7 *What should a WMP contain?* The WMP should include, at a minimum (see Exhibit 9 for further guidance):

A. Management direction in accordance with the refuge purposes, the Wilderness Act of 1964, specific wilderness-establishing legislation, System mission, and ANILCA, as applicable.

B. Goals and objectives for the wilderness area and their relationship to the refuge's purposes and objectives, and System mission, goals, and objectives. We derive wilderness objectives from applicable laws, including the Wilderness Act, legislation establishing the wilderness, purpose(s) for which the unit was established, applicable Service goals, and continental, national, and regional plans.

C. A description of the current or baseline situation of the wilderness resource, including a description of the wilderness area, natural conditions, management activities, existing facilities, and public use levels and activities. The plan also establishes indicators of change in resource conditions; standards for measuring that change; and desired conditions, or thresholds, that will trigger management actions to reduce or prevent impacts on the wilderness. Limits of Acceptable Change (LAC) is one framework designed for establishing indicators, standards, and desired conditions. While LAC commonly is used to manage recreational use of wilderness, the concept applies to any factor that can influence or change desired conditions, including fire, livestock grazing, mining, or impacts on air quality and related values. (See Hendee, Stankey, and Lucas (1990) in Exhibit 8 References).

D. A description of management actions (administrative, natural and cultural resources, public recreation, and interpretation and education) and a schedule of implementation, including funding and staff required to adequately administer the area. The implementation schedule will include a list of specific actions needed to accomplish WMP objectives, general prioritization of the action items, and target dates for completion.

E. Research needs and monitoring requirements to determine whether we are meeting our wilderness management objectives.

F. Procedures for determining and documenting the minimum requirement for administrative actions we will take in wilderness that might require a generally prohibited use and all minimum requirement analyses.

G. Descriptions of how we are to administer valid existing rights and congressionally authorized uses to provide protection to wilderness values.

H. An explanation of how we will coordinate, as much as possible, with adjoining wilderness units so that visitors traveling from one wilderness to another can do so with minimal impediments. Examples include the criteria for issuance of permits, riding and packstock use programs, and group and party sizes.

I. A legal description and map depicting the legal description.

J. An approval page signed by the Regional Director.

#### 6.8 *How will we involve the public in wilderness management planning?*

We will provide opportunities for meaningful public involvement as we develop management guidance for our wilderness areas. Public involvement is required in preparation of both CCPs and step-down management plans (602 FW 3 and 602 FW 4.2). Public involvement is also a requirement of the procedural provisions of the National Environmental Policy Act (NEPA). We will develop a public involvement plan to identify the most appropriate means and methods to ensure meaningful public involvement in wilderness management planning. Methods may vary depending on the particular situation (see 110 FW 1, Public Participation).

6.9 *How will we manage wilderness areas without an approved WMP?* During WMP development, the wilderness management policy (610 FW 1–7) and the refuge CCP will guide the conduct of day-to-day activities.

6.10 *May we implement a WMP completed prior to development of the refuge CCP?* We may implement an individual WMP completed prior to the development of the unit's CCP if the WMP:

- A. Is current and approved; and
- B. Was prepared in accordance with the NEPA process including appropriate public involvement.

6.11 *How frequently should we revise WMPs?* We review the WMP during routine unit programmatic evaluations. We will review and revise WMPs (if necessary) by the refuge staff concurrently with the CCP at least every

15 years, but we should review them every 5 years. We revise WMPs when significant changes to assumptions and conditions warrant it, including natural catastrophes, legal requirements, or environmental conditions. Revision of wilderness management direction requires appropriate public involvement and conformance with NEPA.

6.12 *How do we develop WMPs if our wilderness adjoins wilderness of another Federal agency?* When a Service wilderness area adjoins lands administered by another Federal agency, we coordinate the wilderness area management planning, including public involvement, with the neighboring agency. We develop joint management plans with all involved agencies, if at all possible.

### Fish and Wildlife Service

#### Wilderness Stewardship

##### Part 610

#### Chapter 7 Wilderness Review and Evaluation

##### 610 FW 7.1

7.1 *What is the purpose of this chapter?* This chapter establishes policy for conducting wilderness reviews nationwide. It also establishes policy for managing Wilderness Study Areas (WSAs).

7.2 *To what does this chapter apply?* This chapter applies to all lands of the National Wildlife Refuge System (System) that are subject to wilderness review and not currently designated wilderness. If any provisions in this policy conflict with the provisions of Alaska National Interest Lands Conservation Act (ANILCA), the provisions of ANILCA will prevail for refuges in Alaska.

7.3 *What are the authorities that directly affect wilderness reviews and management of WSAs on our lands?* We review lands for wilderness suitability and manage WSAs consistent with the authorities listed in 602 FW 1.3.

7.4 *What is a wilderness review?* We conduct wilderness reviews in accordance with the Comprehensive Planning Process (CCP) outlined in 602 FW 3. The wilderness review process is conducted in three phases: inventory, study, and recommendation. We identify lands and waters that meet the minimum criteria for wilderness in the inventory phase of the review. We evaluate the resulting WSAs in the study to determine if they merit recommendation from the Director to the Secretary for inclusion in the National Wilderness Preservation System.

7.5 *When should we conduct a wilderness review?* Consistent with the planning guidance, we may conduct a wilderness review any time that significant new information becomes available or when we identify the need to do so. At a minimum, we will conduct wilderness reviews every 15 years through the CCP process. We generally conduct wilderness reviews within 2 years of acquiring acreage (for a new refuge or an expansion) that may qualify as wilderness. A review would be appropriate when we have restored significant acreage to its natural conditions sufficiently that it meets the definition of wilderness. In addition, Congress may direct the study of specific areas and provide other guidance on wilderness evaluations through legislation.

7.6 *How do wilderness reviews relate to acquisition planning?* When we inventory lands and resources of a proposed new refuge or expansion area during the land acquisition planning process and identify management problems, needs, and opportunities, we will also include a preliminary inventory of the wilderness resource (see 602 FW 1.7.C). We discuss potentially suitable areas in the Land Protection Plan and associated NEPA document.

7.7 *Can we conduct a wilderness review outside of the scheduled Comprehensive Conservation Planning or acquisition planning processes?* Yes. At any time before or after we have developed a CCP, if additional information becomes available, if we have acquired additional lands, or if restoration activities have significantly modified System lands, we may conduct a wilderness review. The review will be conducted following the process described in 602 FW 3 including public involvement and NEPA compliance. Existing CCPs should be revised or amended to incorporate the results of wilderness reviews [602 FW 3.4 C (8)].

7.8 *How do we identify WSAs in the wilderness inventory?* We inventory System lands and waters to identify areas that meet the definition of wilderness as defined in Section 2(c) of the Wilderness Act.

A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural

conditions, and which: (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic, or historical value."

Areas that meet the above criteria are identified as WSAs.

7.9 *How do we evaluate the size criteria for wilderness?* Determine if the area " \* \* \* has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition". The Wilderness Act does not specify a minimum size for roadless islands. The size criteria will be satisfied for areas under Service jurisdiction in the following situations:

A. An area with over 5,000 contiguous acres (2,000 ha). State and private land inholdings are not included in making this acreage determination.

B. A roadless island of any size. Refer to 610 FW 1.6 for a definition of roadless island.

C. An area of less than 5,000 contiguous acres that is of sufficient size as to make practicable its preservation and use in an unimpaired condition, and of a size suitable for wilderness management.

D. An area of less than 5,000 contiguous acres that is contiguous with a designated wilderness, recommended wilderness, or area of other Federal lands under wilderness review by the U.S. Forest Service (USFS), Bureau of Land Management (BLM), or National Park Service (NPS).

7.10 *How do we evaluate the naturalness criteria for wilderness?* Determine if the area or island " \* \* \* generally appears to have been affected primarily by the forces of nature with the imprint of man's work substantially unnoticeable." To make this determination, it must be possible to observe the area as being generally natural. It must appear to have been affected primarily by the forces of nature, and people's work must be substantially unnoticeable. It must retain its "primeval character."

A. We make a distinction between an area's "apparent naturalness" and "natural conditions" in the context of our ecological integrity policy. Natural conditions refers to the presence or absence of ecosystems that existed prior to European settlement and the advent of the industrial era. Apparent naturalness refers to whether or not an

area looks natural to the average visitor who is not familiar with natural conditions versus human-affected ecosystems in a given area. The presence or absence of apparent naturalness (i.e., do the works of humans appear to be substantially unnoticeable to the average visitor?) is the question to be addressed in the inventory phase of the wilderness review. An assessment of an area's existing levels of ecological integrity is an appropriate consideration in the study phase of the wilderness review.

B. We will avoid an overly pure approach to assessing naturalness. Congress did not intend to limit wilderness designation to only those areas judged pristine. Land that was once logged, used for agriculture, or otherwise significantly altered by humans may be eligible for wilderness designation if it has been restored, or is in the process of being restored, to a substantially natural appearance.

C. We will use caution in assessing the effects on naturalness that relatively minor human impacts create. An area may include some human impacts provided they are substantially unnoticeable in the unit as a whole. The presence of the following types of impacts in an area being inventoried for wilderness character should not result in a conclusion that the entire area lacks naturalness. Examples of man-made features that would not disqualify an area for consideration as a WSA include: trails, trail signs, bridges, fire towers, fire breaks, fire suppression facilities, pit toilets, fisheries enhancement facilities (such as fish traps and stream barriers), fire rings, hitching posts, snow gauges, water quantity and quality measuring devices, research monitoring markers and devices, wildlife enhancement facilities, radio repeater sites, air quality monitoring devices, fencing, spring developments, and small reservoirs.

D. Significant man-caused hazards, when considered unsafe for public use, such as the existence of unexploded bombs and shells from military activity or contaminated sites would probably disqualify the affected portions of an area from consideration pending completion of remediation and restoration activities.

E. We will not disqualify areas from further wilderness study solely on the basis of the "sights and sounds" of civilization located outside the areas. Human impacts outside the area being inventoried will not normally be considered in assessing naturalness. However, if an outside impact of major significance exists, it should be noted and evaluated in the inventory

conclusions. Human impacts outside the area should not automatically lead to a conclusion that an area lacks wilderness characteristics.

F. We will not disqualify areas from further wilderness study solely on the basis of established or proposed management practices that require the use of temporary roads, motor vehicles, motorized equipment, motorboats, mechanical transport, landing of aircraft, structures, and installations generally prohibited in designated wilderness (see definition of "generally prohibited use" in 610 FW1.6). The physical impacts of these practices should be the focus of the naturalness evaluation. Administrative and management needs are appropriate for consideration in the study phase of the wilderness review.

7.11 *How do we evaluate outstanding opportunities for solitude or a primitive and unconfined type of recreation?* The word "or" in this sentence means that an area only has to possess one or the other. It does not have to possess outstanding opportunities for both elements and does not need to have outstanding opportunities on every acre. There must be outstanding opportunities somewhere in the unit.

A. The Wilderness Act does not specify what was intended by "solitude or a primitive and unconfined type of recreation." In most cases, the two opportunities could be expected to go hand-in-hand. However, the outstanding opportunity for solitude may be present in an area offering only limited primitive recreation potential. Conversely, an area may be so attractive for recreation use that it would be difficult to maintain opportunity for solitude (e.g. around water).

B. We will assess each inventory area on its own merits as to whether an outstanding opportunity exists; there must be no comparison among areas. It is not permissible to use any type of rating system or scale—whether numerical, alphabetical, or qualitative (i.e., high-medium-low)—in making the assessment.

C. When an area is contiguous to designated wilderness, recommended wilderness, or an area of other Federal lands (i.e. USFS, BLM, or NPS) already determined to have wilderness character, no additional evaluation of outstanding opportunities is required.

7.12 *Must an area contain ecological, geological, or other features of scientific, educational, scenic, or historic value to qualify as a WSA?* These values are not required for wilderness but their presence should be documented where they exist.

7.13 *What do we consider in the wilderness study?* We study each WSA identified in the inventory to analyze all values (e.g., ecological, recreational, cultural, economic, symbolic); resources (e.g., wildlife, water, vegetation, minerals, soils); public uses; and management within the area. We conduct wilderness studies following the procedures outlined in the refuge planning policy (602 FW 3). These procedures ensure public involvement and compliance with NEPA.

A. An All Wilderness Alternative and a No Wilderness Alternative will be evaluated for each WSA. Partial Wilderness Alternatives may be developed to minimize resource conflicts or improve the capability of managing the area as wilderness. The environmental analysis will address benefits and impacts to wilderness values and other resources under each of the alternatives. The study will evaluate how each alternative will achieve the goals of the NWPS. The study will also evaluate how each alternative will affect achieving refuge or planning unit purpose(s); help fulfill the System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the System; and meet other mandates.

B. The findings of the study determine whether we will recommend the area for designation as wilderness. The information, analysis, and decisions in the CCP provide the basis for wilderness proposals. The Director must concur with wilderness study conclusions prior to publication of the draft CCP/environmental impact statement (EIS). The study provides data so that we can defend our conclusions, and serves as the basic source of information throughout the public, executive, and legislative review processes that follow.

C. When the findings of the wilderness study result in a proposal for wilderness recommendation, we will give public notice of the proposal; hold a public hearing; and advise the Governor of the State, the governing board of each county or borough, and interested Federal departments and agencies of our intent and invite comment.

7.14 *What are the steps in the recommendation phase of the wilderness review?* The Regional Director must notify the Director of the Region's recommendations on WSAs proposed for wilderness designation. A

Wilderness Study Report must be submitted that summarizes the results of the study and wilderness recommendation. The Director will review the Wilderness Study Report and make the final Service recommendation to the Secretary.

7.15 *What should we include in the Wilderness Study Report?* The study report contains the following information:

A. The Regional Director's wilderness recommendation and rationale;

B. A general description and background history of the area;

C. An analysis of the area's values, resources, and uses;

D. Evidence of public notice of the proposal, including publication in the **Federal Register**, and notices in local newspapers;

E. Evidence that we notified the governor and other concerned officials (e.g., State, local government, and tribal) at least 30 days before holding public hearings;

F. Summary and analysis of comments received plus the public hearing record;

G. Evidence of direct notification and request for comments from the State Historic Preservation Officer regarding the presence or absence of significant cultural resources;

H. A legal description and map showing the proposed wilderness boundary; and

I. An EIS.

7.16 *What additional documents do we need for Secretarial approval of the wilderness recommendation?* The Regional Director will transmit the following additional documentation in support of the Region's wilderness recommendation to the Director for review, in preparation of the Director's recommendation to the Secretary:

A. A draft letter from the Director to the Secretary;

B. A draft letter from the Secretary to the President;

C. A draft letter from the President to the House and Senate;

D. Draft legislative language;

E. A copy of the unit's CCP and final EIS; and

F. A communication strategy and implementation plan.

7.17 *What is the general policy for managing WSAs?* A. We will manage WSAs to maintain their wilderness character to the extent that it will not preclude fulfilling and carrying out refuge purposes and the System

mission. Once an area is identified as a WSA, protection will consist of a case-by-case review of any proposed or new site-specific projects, administrative actions, or uses within the WSA. The review will include a minimum requirement analysis and NEPA compliance to assess potential impacts and identify mitigating measures to protect wilderness character. The analysis must consider the entire WSA, not just the specific project area.

B. When we determine that a proposed discretionary action could cause irreversible or irretrievable impacts to the wilderness resource, we will postpone the action pending completion of the wilderness study unless the proposed action is part of an existing management plan and the Regional Director makes a written determination that the action is integral to accomplishing the purposes of the refuge.

C. Other than those activities that exist when an area is identified as a WSA, activities that we will allow are generally temporary uses that create no new surface disturbance and do not involve placement of permanent structures. Valid existing rights must be recognized.

7.18 *What is our general policy for managing proposed wilderness?* Proposed wilderness has undergone a complete wilderness review process and full environmental compliance. We will therefore manage proposed wilderness consistent with guidance provided in the preceding chapters (610 FW 1–6) to the extent that it will not preclude fulfilling and carrying out refuge purposes and the System mission. We will describe the management direction for each proposed wilderness either as part of the CCP (602 FW 3) or in a WMP. The WMP is a form of step-down management plan (602 FW 1.6 and 602 FW 4) that provides detailed strategies and implementation schedules for meeting the broader wilderness goals and objectives identified in the CCP. WMPs are developed following the planning process guidance in 602 FW 1 and 602 FW 3 (602 FW 4). We will not abrogate Congress's prerogative for designating wilderness, so we will preserve the wilderness character of proposed wilderness until Congress takes action.

**Exhibit 1.—U.S. Fish and Wildlife Service, National Wildlife Refuge (NWR) System**

## DESIGNATED WILDERNESS AREAS

Refuge name	Wilderness area name	Class I air quality	Public law	Wilderness acres
Alaska:				
Alaska Maritime NWR .....	Aleutian Islands .....		96-487	1,300,000
Alaska Maritime NWR .....	Bering Sea .....	Yes	91-504	81,340
Alaska Maritime NWR .....	Bogoslof .....		91-504	175
Alaska Maritime NWR .....	Chamisso .....		93-632	455
Alaska Maritime NWR .....	Forrester Island .....		91-504	2,832
Alaska Maritime NWR .....	Hazy Island .....		91-504	32
Alaska Maritime NWR .....	Semidi .....		96-487	250,000
Alaska Maritime NWR .....	Simeonof .....	Yes	94-557	25,855
Alaska Maritime NWR .....	St. Lazaria .....		91-504	65
Alaska Maritime NWR .....	Tuxedni .....	Yes	91-504	5,566
Alaska Maritime NWR .....	Unimak .....		96-487	910,000
Arctic .....	Mollie Beattie .....		96-487	8,000,000
			104-167	
Becharof .....	Becharof .....		96-487	400,000
Innoko .....	Innoko .....		96-487	1,240,000
Izembek .....	Izembek .....		96-487	307,982
Kenai .....	Kenai .....		96-487	1,350,558
			104-333	
Koyukuk .....	Koyukuk .....		96-487	400,000
Selawik .....	Selawik .....		96-487	240,000
Togiak .....	Togiak .....		96-487	2,270,160
Yukon Delta .....	Andreafsky .....		96-487	1,300,000
Yukon Delta .....	Nunivak .....		96-487	600,000
Arizona:				
Cabeza Prieta .....	Cabeza Prieta .....		101-628	803,418
Havasu .....	Havasu .....		101-628	14,606
Imperial .....	Imperial .....		101-628	9,220
Kofa .....	Kofa .....		101-628	516,200
Arkansas: Big Lake .....	Big Lake .....		94-557	2,144
California:				
Farallon .....	Farallon .....		93-550	141
Havasu .....	Havasu .....		103-433	3,195
Imperial .....	Imperial .....		103-433	5,836
Colorado: Leadville Fish Hatchery .....	Mount Massive .....		96-560	2,560
Florida:				
Cedar Keys .....	Cedar Keys .....		92-364	379
Chassahowitzka NWR .....	Chassahowitzka .....	Yes	94-557	23,579
Great White Heron .....	Florida Keys .....		93-632	1,900
Island Bay .....	Island Bay .....		91-504	20
J.N. "Ding" Darling .....	J.N. "Ding" Darling .....		94-557	2,619
Key West .....	Florida Keys .....		93-632	2,019
Lake Woodruff .....	Lake Woodruff .....		94-557	1,066
National Key Deer .....	Florida Keys .....		93-632	2,278
Passage Key .....	Passage Key .....		91-504	36
Pelican Island .....	Pelican Island .....		91-504	6
St. Marks NWR .....	St. Marks .....	Yes	93-632	17,350
Georgia:				
Blackbeard Island .....	Blackbeard Island .....		93-632	3,000
Okefenokee NWR .....	Okefenokee .....	Yes	93-429	353,981
Wolf Island .....	Wolf Island .....	Yes	93-632	5,126
Illinois: Crab Orchard .....	Crab Orchard .....		94-557	4,050
Louisiana:				
Breton NWR .....	Breton .....	Yes	93-632	5,000
Lacassine .....	Lacassine .....		94-557	3,346
Maine:				
Moosehorn NWR .....	Baring Unit .....	Yes	93-632	4,680
Moosehorn NWR .....	Birch Islands Unit .....		91-504	6
Moosehorn NWR .....	Edmunds Unit .....		91-504	2,706
Massachusetts: Monomoy .....	Monomoy .....		91-504	2,420
Michigan:				
Huron .....	Huron .....		91-504	148
Michigan Islands .....	Michigan Islands .....		91-504	12
Seney NWR .....	Seney .....	Yes	91-504	25,150
Minnesota:				
Agassiz .....	Agassiz .....		94-557	4,000
Tamarac .....	Tamarac .....		94-557	2,180
Missouri: Mingo NWR .....	Mingo .....	Yes	94-557	7,730
Montana:				
Medicine Lake NWR .....	Medicine Lake .....	Yes	94-557	11,366
Red Rock Lakes NWR .....	Red Rock Lakes .....	Yes	94-557	32,350

## DESIGNATED WILDERNESS AREAS—Continued

Refuge name	Wilderness area name	Class I air quality	Public law	Wilderness acres
UL Bend NWR .....	UL Bend .....	Yes	94-557	20,819
Nebraska: Fort Niobrara .....	Fort Niobrara .....		94-557	4,635
New Jersey:				
Edwin B. Forsythe NWR .....	Brigantine .....	Yes	93-632	6,681
Great Swamp .....	Great Swamp .....		90-532	3,660
New Mexico:				
Bitter Lake NWR .....	Salt Creek .....	Yes	91-504	9,621
Bosque del Apache NWR .....	Chupadera .....	Yes	93-632	5,289
Bosque del Apache NWR .....	Indian Well .....	Yes	93-632	5,139
Bosque del Apache NWR .....	Little San Pascual .....	Yes	93-632	19,859
North Carolina: Swanquarter .....	Swanquarter .....	Yes	94-557	8,785
North Dakota:				
Chase Lake .....	Chase Lake .....		93-632	4,155
Lostwood .....	Lostwood .....		93-632	5,577
Ohio: West Sister Island .....	West Sister Island .....		93-632	77
Oklahoma:				
Wichita Mountains .....	Charons Garden .....	Yes	91-504	5,723
Wichita Mountains NWR .....	North Mountain .....		91-504	2,847
Oregon:				
Oregon Islands .....	Oregon Islands .....		91-504	21
Oregon Islands .....	Oregon Islands .....		95-450	459
Oregon Islands .....	Oregon Islands .....		104-333	445
Three Arch Rocks .....	Three Arch Rocks .....		91-504	15
South Carolina: Cape Romain NWR .....	Cape Romain .....	Yes	93-632	29,000
Washington:				
Copalis .....	Washington Islands .....		91-504	61
Flattery Rocks .....	Washington Islands .....		91-504	125
Quillayute Needles .....	Washington Islands .....		91-504	300
San Juan Islands .....	San Juan Islands .....		94-557	353
Wisconsin:				
Gravel Island .....	Wisconsin Islands .....		91-504	27
Green Bay .....	Wisconsin Islands .....		91-504	2
Total .....				20,694,517

**Exhibit 2.—Wilderness Acreage Report***Reports Control Symbol R610-5*

The Regional Wilderness Coordinator will send this report to the Chief, National Wildlife Refuge System, by October 1 of each year. The report will include:

- The units with designated wilderness, proposed wilderness, or Wilderness Study Areas and the acreage for each;
- The total number of Refuge and Wildlife, Ecological Services, and Fisheries staff that have attended wilderness training;
- A list of refuge managers, Ecological Service project leaders, or Fisheries project leaders at units with designated or proposed wilderness, or significant wilderness responsibilities that have not attended wilderness training; and
- The recommended schedule for employee wilderness training for the next fiscal year.

**Exhibit 3.—Wilderness Character**

\* \* \* each agency administering any area designated as wilderness shall be responsible for preserving the *wilderness character* of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its *wilderness character*. [emphasis added]—Section 4 (b), The Wilderness Act of 1964

Preserving “Wilderness character,” referenced throughout the Act and

throughout this policy, is one of our criteria for judging the appropriateness of potential management actions, public uses, and technologies in Wilderness. Thus, we need to know what it is. We need a sense of how tangible and intangible attributes of a landscape converge to shape wilderness character, and how our actions may diminish or enhance this elusive, but definitive quality.

The natural, scenic condition of the land, natural numbers and interactions of wildlife, the integrity of ecological processes: these are all essential characteristics of the wilderness condition. But at its core, wilderness character, like personal character, is much more than a physical condition. This is what the ness of wilderness conveys—an aura or essence that connects the physical entity to deeper meanings it has come to embody.

The character of wilderness is an unseen presence capable of refocusing our perception of nature and our relationship to it. It is that quality that lifts our connection to a landscape from the utilitarian, commodity orientation that dominates the major part of our relationship with nature to the symbolic realm serving other human needs.

This transcendent function of wilderness character is recognized in the legislative history written by the Wilderness Act's chief author, Howard Zahniser:

We deeply need the humility to know ourselves as the dependent members of a great community of life, and this can indeed be one of the spiritual benefits of a wilderness experience. Without the gadgets, the inventions, the contrivances whereby men have seemed to establish among themselves an independence of nature, without these distractions, to know the wilderness is to know a profound humility, to recognize one's littleness, to sense dependence and interdependence, indebtedness, and responsibility.—The Need for Wilderness Areas, 1956

Like a cathedral or shrine or memorial to which it is so often compared, wilderness serves an ancestral impulse—found throughout time and across cultures—to set some places apart as the embodiment of an ideal. The wilderness ideal, as Zahniser so eloquently stated, is the need for places where we can know ourselves as part of something beyond our modern society and its creations, something more timeless and universal.

Wilderness character is not preserved by our compliance with wilderness legislation and regulation alone. It emerges from the circumstances we impose upon ourselves. It emerges from the decisions we make that test our commitment to our ideals. Does our choice represent a willingness to compromise for convenience and expediency? Or does it represent our willingness to stand tall in the

arena of controversy, the triumph of principle?

Every management decision against an action or technology that might degrade the wilderness condition serves to uphold and strengthen the character it is seen to have. Every decision to forgo actions, technologies, or conveniences that have no seeming physical impact but detract from our commitment to wilderness as a place set apart enhances wilderness and agency character more, because sacrifice for an ideal is the strongest gesture of respect.

The Wilderness Act provides guidance for such decisions. But beyond its listing of certain allowed and prohibited uses, much ambiguity remains. Like the stewards of the Saint Paul Cathedral, Arlington Cemetery, or the Viet Nam Memorial, we have few objective criteria, and no standard metric with which to quantify or evaluate actions that enhance or detract from the character of our nation's natural sacred places. This is the unique challenge of wilderness management, preserving what is unseen and unmeasurable.

But Zahniser's words suggest that chief among our criteria should be the purpose of the action, the spirit in which it is carried out, and the effect it will have on our way of thinking. Will the action reinforce the primacy of our uses and benefits, our convenience and expediency? Or will it serve to affirm our role as humble, respectful guests and servants of the landscape? As the criteria we choose shapes the character of wilderness, so it shapes our character as stewards.

Consider a proposed habitat modification. If its purpose is to aid the survival of an endangered species, the action is congruent with the character of wilderness. But the same action, intended to increase the population of a preferred game species, violates the idea of respect for natural processes. Similarly, use of a wheelchair by the disabled is within the spirit of wilderness

use, while a mountain bike, at the same level of technology, is not.

Wallace Stegner called Wilderness America's "geography of hope"—the hope for an undiminished future. Nowhere is this stewardship ideal expressed more visibly, nowhere is it made more apprehensible than in those remnant landscapes we allow to be wild and free. Free of our tendency to dominate and bend nature to our purposes. Thus free to inspire thinking outside the context of our uses, and beyond the boundary of our life and lifetime.

This convergence of vision and restraint is the source and symbolism of wilderness character. It is that essential being of the land which evokes what Zahniser described as the spiritual benefit of the wilderness experience. It is that quality that transcends physical boundaries to touch the millions who will never come, but who find inspiration and hope just in knowing some places are—and will always be—wild and free.

**Exhibit 4.—Minimum Requirement Decision Guide**

**Note:** Exhibit 4 is not printed in the **Federal Register**. It is available on the internet at [http://www.wilderness.net/carhart/docs/min\\_req\\_dec\\_guide.PDF](http://www.wilderness.net/carhart/docs/min_req_dec_guide.PDF) and by written request to: National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia 22003.

**Exhibit 5.—Light and Noise Pollution**

*Protection of Dark Night Skies*

Dark night skies, unpolluted by manmade light, are integral to the wilderness experience and allow visitors to fully appreciate the stars and planets. Dark night skies are essential to some wildlife. We will cooperate with neighbors and local government agencies to minimize the

intrusion of artificial light in wilderness areas.

*Noise Pollution*

We will strive to preserve the natural quiet and the natural sounds associated with wilderness (for example, the sounds of the winds in the trees or the howl of a wolf). We should monitor activities causing excessive or unnecessary unnatural sounds in and adjacent to wilderness areas, including low-elevation aircraft overflights. We will take action to prevent or minimize unnatural sounds that adversely affect wilderness resources or values or visitors' enjoyment of them.

**Exhibit 6.—Leave No Trace**

*Memorandum of Understanding*

**Note:** Exhibit 6 is not printed in the **Federal Register**. It is available on the internet at <http://refuges.fws.gov/library/> or by written request to: National Wildlife Refuge System, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 670, Arlington, Virginia 22003.

**Exhibit 7.—Primary Interpretive Themes for Wilderness**

Interpretation provides opportunities for people to forge intellectual and emotional connections to the meanings inherent in wilderness resources. Interpretive themes communicate specific messages based upon the significance of the wilderness resource and experience to the American people. They are the stories through which we convey the values of wilderness to the public. These themes connect wilderness to larger ideas as well as universal meanings and values. They are the building blocks on which we base interpretive products and services for wilderness. The interpretive themes for wilderness areas are:

**PRIMARY INTERPRETIVE THEMES FOR WILDERNESS EDUCATION**

Theme A .....	The concept of wilderness, codified in law, originated in the United States with the conviction that some wild land resources are most valuable to Americans left in their natural state (e.g. social, scientific, economic, educational, recreational, and cultural value).
Theme B .....	As a foundation for healthy and diverse ecosystems, officially designated wilderness and other remaining wild lands provide critical habitat for rare and endangered species and play a significant role in the overall health of natural systems worldwide (e.g. watersheds, air quality).
Theme C .....	By law, we manage wilderness differently than other federal lands in order to retain its primeval character and preserve wilderness as a special place for humans to examine their relationship to the natural world.
Theme D .....	Wilderness offers opportunities for personal renewal, inspiration, artistic expression, pride of ownership of our shared heritage, and the prospect of hope for the future. Wilderness has inspired and continues to inspire a distinctive genre of literature and art, enriching millions of lives in the United States and around the world.
Theme E .....	Wilderness provides opportunities for physical and mental challenge, risk and reward, renewal, self-reliance, solitude, and serves as a haven from the pressures of modern society (e.g. exploration, discovery, and recreation).
Theme F .....	The survival of wilderness depends on individual and societal commitment to the idea of wilderness and on appropriate visitor use, behavior, and values (e.g. appreciation, values, skills).
Theme G .....	Wilderness provides a unique setting for teaching ecosystem stewardship as well as science, math, literature, art and other subjects using an interdisciplinary approach (e.g. civics, outdoor skills, music, and others).
Theme H .....	Wilderness contains primitive areas relatively undisturbed by human activities where scientific research may reveal information about natural processes and living systems that may have wide-ranging applications and may serve as global indicators of ecological change.
Theme I .....	Cultural and archeological sites found in wilderness can provide a more complete picture of human history and culture. (This includes indigenous peoples, conquests, colonialism and resistance, freedom, independence, and ingenuity, a sense of connectedness, stewardship, and human survival.)
Theme J .....	The Wilderness Act created a National Wilderness Preservation System that preserves some of the most unique ecological, geological, scientific, scenic, and historical values in the National Park System, the National Wildlife Refuge System, National Forest System, and in public lands administered by the Bureau of Land Management, and that the public and Congress have determined to require special protection.

## PRIMARY INTERPRETIVE THEMES FOR WILDERNESS EDUCATION—Continued

Theme K .....	Wilderness visitors must accept certain inherent risks associated with weather, terrain, water, wildlife, and other natural elements. We cannot guarantee visitor safety, but we can enhance it with proper trip planning, appropriate skill, and responsible behavior.
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**Exhibit 8.—References**

Hendee, John C., Stankey, George H., Lucas, Robert C., 1990, *Wilderness Management*, North American Press, Golden, Colorado, pp. 219–238.

Zahniser, Howard, 1956, "The Need for Wilderness Areas," *The Living Wilderness*, Winter-Spring 1956–57, No. 59, pp 37–43.

**Exhibit 9.—Wilderness Management Plan Outline****I. Introduction.**

A. Wilderness establishment, including contents of pertinent laws, date of establishment, any changes from Secretary's recommendation, pertinent committee report discussion, and special provisions.

B. Objectives for the wilderness area and their relationship to the refuge's purposes and objectives, and System mission, goals, and objectives, including protection of the air quality related values of Class I wilderness areas.

**II. Description of the Wilderness Area.**

A. Legal and narrative description of the area.

B. Map displaying Service land unit boundary and wilderness area boundary.

C. A description of the current or baseline situation of the wilderness resource, including a description of the wilderness area, natural conditions, management activities, existing facilities, and public use levels and activities.

III. Public Involvement. Describe public involvement activities and provide a

summary and analysis of comments received and how the plan responds to them.

**IV. Management.**

A. Detailed discussions of existing and planned biological, public use, cultural resource, and administrative management activities and permitted uses.

B. Procedures for determining and documenting the minimum requirement for administrative actions we will take in wilderness that might require a generally prohibited use.

C. The minimum requirement analyses for anticipated application of a generally prohibited use.

D. Descriptions of how valid existing rights and congressionally authorized uses are to be administered to provide protection to wilderness values.

E. An explanation of how we will coordinate with adjoining wilderness units so that visitors traveling from one wilderness to another can do so with a minimum of bureaucratic impediments.

F. Indicators of change in resource conditions; standards for measuring that change; and desired conditions, or thresholds, that will trigger management actions to reduce or prevent impacts on the wilderness. Limits of Acceptable Change (LAC) is one framework designed for establishing indicators, standards and desired conditions. (See Hendee, Stankey, and Lucas (1990) in Exhibit 8 References).

V. Research. Describe any past and current research, and identify research needs.

VI. Funds and Personnel. Provide a discussion of staff and funds needed to manage the wilderness.

VII. Monitoring. Identify monitoring requirements and thresholds for action, including procedures for measuring baseline air quality.

VIII. Implementation Schedule. Provide a schedule of implementation, prioritization of action items, staff assignments, and funding requirements to adequately administer the area.

IX. Compatibility Determination

X. Review and Approval.

XI. Appendix.

A. A copy of the Wilderness Act.

B. A copy of the legislation establishing the wilderness.

C. Service wilderness regulations (50 CFR 35), except Alaska.

D. Wilderness study report for the wilderness.

E. NEPA documentation, if applicable.

F. Public hearing record from wilderness study.

G. Congressional hearing record.

H. Congressional committee report accompanying the authorizing legislation.

Dated: November 29, 2000.

**Jamie Rappaport Clark,**

*Director, U.S. Fish and Wildlife Service.*

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