

# Research Protocols in National Park Service Wilderness

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**Abstract**—While the National Park Service encourages the use of its wilderness resource for research, management policies require that all research apply “minimum requirement” protocols to determine: 1) if the research is needed to support the purposes of wilderness and, 2) if it is appropriate, determine the minimum tool needed to accomplish the work.

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The National Park Service (NPS) currently administers 43,079,219 acres of designated wilderness within 44 national park areas and has an additional 16,000,000+ acres identified as recommended or potential wilderness in 31 additional park units. The number and types of requests by NPS scientists and academic institutions wanting to conduct research within park wilderness makes it necessary for managers to evaluate the merits of individual research projects against their responsibilities to preserve the letter and spirit of wilderness as defined by the 1964 Wilderness Act.

In 1997 the National Park Service adopted a three-tiered Directive System regulating the issuance of Service guidelines.

**Level 1** instructions consists of policies included within the NPS *Management Policies* handbook. **Level 2** guidelines are issued as “Director’s Orders.” Director’s Order’s articulate new or revised policy on an interim basis between the publication date of NPS Management Policies and are intended to provide specific instructions and outline requirements applicable to NPS functions, programs, and activities. Director’s Order’s also provide a means by which the Director can delegate specific authorities and responsibilities. The main target audience for Director’s Orders is park superintendents and managers. **Level 3** materials include handbooks, reference manuals and other documents containing comprehensive information in support of field activities and planning operations.

The need for more specific guidelines directing the administration of NPS research activities in wilderness was identified by field staff as one of several critical issues which needed to be addressed in the agencies revised Management Policies handbook.

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In: McCool, Stephen F.; Cole, David N.; Borrie, William T.; O’Loughlin, Jennifer, comps. 2000. Wilderness science in a time of change conference—Volume 3: Wilderness as a place for scientific inquiry; 1999 May 23–27; Missoula, MT. Proceedings RMRS-P-15-VOL-3. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

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## National Park Service Wilderness Research Protocols

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The National Park Service recently completed *Reference Manual #41: Wilderness Preservation and Management* which includes both the updated and revised management policies (*Management Policies Chapter 6: Wilderness Preservation and Management*) and Director’s Orders intended to instruct the parks on the specific implementation of policy guidelines. Section 6.3.10 (Scientific Activities) of the policies statement includes protocols for evaluating and approving research activities within wilderness. The policy document attempts to establish a positive tone addressing the issue of research in wilderness by stating:

“The statutory purposes of wilderness include scientific activities, and these activities are permitted when consistent with the agencies responsibilities to preserve and manage wilderness. The National Park Service has a responsibility to support appropriate scientific activities in wilderness, and to use science to improve wilderness management. The Service further recognizes that appropriate scientific activities may be critical to the long-term preservation of wilderness.

The policy statement also identifies conditions under which research activities, including those involving prohibitions identified in Section 4(c) of the Wilderness Act (no commercial enterprises, no permanent roads, no motor vehicles, no landing of aircraft, no other form of mechanical transport) may be permitted within wilderness as the “minimum requirement” needed for the administration of the area. These research conditions include:

- The desired information is essential for the administration or preservation of wilderness, and the project cannot be reasonably modified to eliminate or reduce the nonconforming wilderness use. The preservation of wilderness resources and character will be given significantly more weight than economic efficiency and/or convenience.
- The needed information cannot be obtained from outside the wilderness area or from outside the park without significant loss of precision and applicability.
- NEPA (including the completion of a documented categorical exclusions, environmental assessments/findings of no significant impact, or environmental impact statements/records of decision) and other regulatory compliance is accomplished and documented.
- All scientific activities will be accomplished in accordance with stipulations adopted at the time the research permit is approved. Later requests for exceptions to the Wilderness Act will require additional review.

- The project will not significantly interfere with other wilderness purposes (recreational, scenic, educational, conservation or historical) over a broad area or for a long period of time.
- The project information is determined to be necessary to the understanding, health, or management of the wilderness area.
- Implementation of the project will apply the minimum requirement concept.

The revised policies further provide for the installation of research and monitoring devices (video cameras, data loggers, meteorological stations) within wilderness if: 1) the desired information is essential for the administration and preservation of wilderness and cannot be obtained from a location outside of wilderness without significant loss of precision and applicability, and 2) the proposed device is the minimum requirement necessary to accomplish the research objective safely.

These policies are designed to ensure that research projects, regardless of the agency or institution conducting the research, apply a minimum requirement assessment similar to that applied to all other management actions affecting wilderness.

Instructions for performing a minimum requirement assessment, including those needed for research projects, are included as a separate section (Chapter 6, Section 6.3.6, *Minimum Requirement*) within the revised policy statements. The minimum requirement concept is to be applied as a two-step process which: 1) determines whether or not the proposed research project is needed and necessary for the purposes of wilderness, and 2) the techniques and type of equipment needed to ensure that impact to wilderness resources and values is minimized. In the determination of minimum requirement, park superintendents are instructed to give the disruption of wilderness character and resources significantly more weight than economic efficiency and staff convenience during the decision making process. While the parks are provided with considerable license in the use and

development of minimum requirement decision tools, the process finally adopted must be recorded and accompanied by appropriate environmental compliance documentation. Examples of minimum requirement decision tools are provided in the appendices of *Reference Manual #41: Wilderness Preservation and Management*.

Director's Order #41, accompanying the revised NPS policy statements for wilderness preservation and management, provides further guidance for applying the policy requirements concerning research in park wilderness. Section 8 (Scientific Activities) encourages the use of park wilderness for scientific purposes, provided that the benefits of research projects outweigh the negative impacts on wilderness values and the work is conducted "in accord with wilderness stewardship and preservation principles."

## Conclusions

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The increasing number of requests to conduct research in National Park Service wilderness, and the capacity of these activities to adversely impact wilderness values, have necessitated the need to establish agency guidelines which: 1) promote the use of established wilderness for legitimate scientific activities, and 2) preserves wilderness values through the application of minimum requirement protocols in assessing individual research projects. Guidelines for conducting research activities in wilderness have been issued in NPS *Reference Manual #41: Wilderness Preservation and Management*.

## References

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- USDI. 1999 Chapter 6: Wilderness Preservation and Management. National Park Service *Management Policies*.
- USDI. 1999 National Park Service *Reference Manual #41: Wilderness Preservation and Management* (including *Director's Order #41: Wilderness Preservation and Management*).