

153

*"Taking Care
of What We've Got"*



**First
National
Wilderness
Management
Workshop**

Moscow, Idaho
October 11-13, 1983

UNIVERSITY of IDAHO
WILDERNESS RESEARCH CENTER

College of Forestry, Wildlife & Range Sciences

TEACHING/RESEARCH/SERVICE

- Communication/ Interpretation
- Management/ Administration
- Planning/ Design



"TAKING CARE OF WHAT WE'VE GOT"

Welcome to the First National Wilderness Management Workshop. The response to our invitation has far exceeded expectations. You and your fellow participants have come here to represent diverse agencies and interests. You have come from all parts of the country, and from Canada as well, to deal with a singular issue of broad national concern.

Whether wilderness should be protected is not the question. That has already been determined by law. Nor are we dealing with how much wilderness should be protected, important though that may be. We leave that for another time. Learning to take care of what we've got is challenge enough that demands serious dialogue and direction.

This is a workshop about the future. The focus is on issues, concepts and techniques. Through your earnest participation and open expression, you can make it an historic conference. The emphasis is on involvement and dialogue, with the input of eminent panelists and speakers designed to stimulate your thinking and expression.

For the three days we're together, let's concentrate on the future of wilderness and try to provide direction to manage it wisely. We hope you will enjoy good fellowship in the process. Welcome to Moscow and to Idaho!

Edwin E. Krumpe, Director
Wilderness Research Center

Michael Frome, Program Chairman
First National Wilderness Management Workshop

Planning and Program Committee

Stanley Albright	Ray Karr
Paul Barker	Tom Kovalicky
Janet Bishop	William McLaughlin
Arnold Bolle	William A. Worf

"TAKING CARE OF WHAT WE'VE GOT"
First National Wilderness Management Workshop
University of Idaho, Moscow, Idaho

TUESDAY, Oct. 11

7:30 - Continental Breakfast and Registration,
8:30 a.m. Cavanaugh's Motor Inn, Appaloosa Room

9:00 a.m. Opening Session - Student Union Building,
East Ballroom. Workshop opened by
Charles T. Coston, Regional Director,
Northern Region, U.S. Forest Service,
Missoula, MT.

"Facing the Challenge," Keynote by
Michael Frome, Visiting Associate Pro-
fessor, University of Idaho

9:30 a.m. Working Group Meetings, Student Union
Building, East Ballroom

Topic: *"Identifying the Issues and
Problems that Face Wilderness
Management."*

All conference attendees will partici-
pate in small group workshops to identify
and prioritize the key issues and problems.
Edwin E. Krumpe, Director, Wilderness
Research Center, will lead the process.

12:00 noon Workshop Participants' Luncheon -Student
Union Building, West Ballroom

*"The Role of Citizens in Wilderness Man-
agement."*

Moderator: Roy Feuchter, Director, Rec-
reation Management, U.S.
Forest Service, Washington,
DC.

Speakers: Joyce Kelly, Director, Rec-
reation, Wilderness and Cul-
tural Resources, Bureau of
Land Management, Washing-
ton, DC, *"What Agencies
Need from the Public."*

Arnold Bolle, Vice President,
The Wilderness Society,
Missoula, MT, *"Public Groups
are Focusing on Management."*

Respondent: Robert Barbee, Superinten-
dent, Yellowstone National
Park, Wyoming-Idaho-Mon-
tana

TUESDAY (Continued)

1:30 p.m. Working Group Meetings, Student Union
Building, East Ballroom

Topic: *"Identifying How Management
Problems Actually Affect the Wil-
derness Resource."*

3:30 p.m. General Session - Student Union Building,
East Ballroom

*"The Challenges of Managing Wilderness in
the National Parks,"* Russell E. Dickenson,
Director, National Park Service, Washing-
ton, DC

Introduced by James R. Fazio, Associate
Dean, College of Forestry, Wildlife and
Range Sciences, University of Idaho

4:45 - Dinner (on your own)
7:00 p.m.

7:00 - Information Mart (no-host bar), Cava-
naugh's Motor Inn, Lewis & Clark Room -
9:30 p.m. An open forum in which managers, agen-
cies and organizations can display and
share information about innovative tech-
niques, research reports, audio-visual pro-
grams, new equipment, maps, brochures,
training materials and other information
and resources that have proven useful in
wilderness management programs across
the country.

WEDNESDAY, Oct. 12

8:00 a.m. General Session - Student Union Building,
East Ballroom

*"Managing Wilderness in the National Wild-
life Refuge System,"* Robert Jantzen,
Director, U.S. Fish & Wildlife Service,
Washington, DC

Introduced by Jerry Conley, Director,
Idaho Dept. of Fish & Game, Boise, ID

8:30 a.m. *"Wilderness Wildlife - Problems, Issues,
Future Directions"*

Moderator: Jerry Conley, Director, Idaho
Dept. of Fish & Game, Boise,
ID

Speakers: Allen E. Smith, President,
Defenders of Wildlife, Wash-
ington, DC

Rupert Cutler, Senior Vice
President, National Audubon
Society, New York, NY

Respondent: Robert Haraden, Superinten-
dent, Glacier National Park,
MT

WEDNESDAY (Continued)

9:45 a.m. Working Group Meeting, Student Union Building, East Ballroom

Topic: *"Identifying How People Are Affected by the Problems Facing Wilderness Management."*

"Update on USFS Wilderness Fire Policy," Everett Towle, Director, Fire and Aviation Management, U.S. Forest Service, Washington, DC.

10:45 a.m. Break

"The Park Service Experience with Natural Fire Management Programs," James K. Agee, National Park Service, Research Biologist, Cooperative Park Studies Unit, Univ. of Washington, Seattle

11:00 a.m. General Session, Student Union Building, East Ballroom

"Wilderness Access, Development and Outfitting — What Management Problems Do They Present?"

3:15 p.m. Break

Moderator: Mike Penfold, Montana State Director, Bureau of Land Management, Billings, MT

3:30 p.m. General Session - Student Union Building, Main Ballroom

Panelists: Paul D. Weingart, Director of Recreation, Southwest Region, U.S. Forest Service, Albuquerque, NM

"Public Lands—New Challenge for Wilderness Management," Bob Burford, Director, Bureau of Land Management, Washington, DC

William A. Worf, U.S. Forest Service retired, formerly Director of Recreation, Northern Region, Stevensville, MT

Introduced by Clair Whitlock, Idaho State Director, Bureau of Land Management, Boise, ID

Robert Giersdorf, First Vice President, Travel Industries of America (President, Exploration Holidays), Seattle, WA

4:00 p.m. *"One National Wilderness Preservation System — Resolving the Perception of Eastern, Western and Alaskan Wilderness."*

Respondents: Smoke Elser, Wilderness Outfitter, Missoula, MT

Moderator: Jeff M. Sirmon, Regional Forester, Pacific Northwest Region, U.S. Forest Service Portland, OR

Jack Cole, President, National Forest Recreation Association, Lincoln, NE

Panelists: Roger Contor, Alaska Regional Director, National Park Service, Anchorage, AK

12:30 p.m. Keynote Luncheon, Cavanaugh's Motor Inn, Lewis & Clark Room

Luncheon Address: *"Congressional Directives and Expectations,"* Honorable James McClure, United States Senator, Chairman, Senate Committee on Energy and Natural Resources

Destry Jarvis, Chairman, Alaska Coalition and Director of Federal Activities, National Parks and Conservation Association, Washington, DC

Introduced by John Ehrenreich, Dean, College of Forestry, Wildlife and Range Sciences, University of Idaho

Mack Prichard, Director of Outdoor Education, Tennessee Department of Conservation, Nashville, TN

2:15 p.m. General Session - Student Union Building, East Ballroom

"Wilderness Fire Management."

Charles R. Joy, Director of Recreation, Eastern Region, U.S. Forest Service, Milwaukee, WI

Moderator: Polly Dyer, President, Olympic Park Associates, Seattle, WA

5:30 p.m. Dinner (on your own)

7:30 - 8:30 p.m. Meeting of Leaders of Working Groups, Room 200, Dean's Conference Room, Forestry Building

THURSDAY, Oct. 13

8:00 a.m. Working Group Meeting, Student Union Building, East Ballroom

Topic: *"Identifying Management Actions to Solve the Problems"*

9:30 a.m. General Session, Student Union Building, East Ballroom

"Realities of Conflict—Resources and Uses Both Within and Adjacent to Wilderness."

Moderator: Craig Rupp, Regional Director, Rocky Mountain Region, U.S. Forest Service, Denver, CO

Panelists: Ron A. Michieli, Vice President, National Cattlemen's Association, Washington, DC

Wayne Ludeman, Director of Forest Planning, Inland Forest Resource Council, Missoula, MT

Dean Moses, Public Lands Coordinator, ARCO Exploration Company, Denver, CO

10:45 a.m. Break

11:00 a.m. *"Research Update: What Research Has Learned About Management — What We Need to Know."*

Robert Lucas, Leader, Wilderness Management Research Work Unit, Forestry Sciences Laboratory, Missoula, MT

George Stankey, Research Social Scientist, Wilderness Management Research Work Unit, Forestry Sciences Laboratory, Missoula, MT

12:00 - 1:30 p.m. Lunch (on your own)

1:30 p.m. Final General Session, Student Union Building, Main Ballroom

"Taking Stock of What We've Learned — Reports from the Working Groups Summarizing Key Findings."

2:30 p.m. In Response to the Working Groups:

"Wilderness Management in the 1980's — Where Do We Go From Here?" R. Max Peterson, Chief, U.S. Forest Service, Washington, DC

Introduced by Tom Kovalicky, Supervisor, Nez Perce National Forest, Grangeville, ID

3:00 Workshop Conclusion — and the Beginning

Associated Group Sessions

WEDNESDAY, Oct. 12

7:30 - 9:00 p.m. National Park Action Project, College of Forestry, Room 10

Joint meeting of attendees representing National Park Service and grass-roots citizen representatives of National Parks and Conservation Association

FRIDAY, Oct. 14

8:30 a.m. - 12:00 noon Bureau of Land Management Workshop Review, Room 200, College of Forestry

Attendees representing Bureau of Land Management

Position Paper: American Mining Congress

WILDERNESS POLICIES
Thomas C. Nelson
Assistant to the President

INTRODUCTION

The American Mining Congress is an industry association that encompasses: (1) producers of most of America's metals, coal and industrial and agricultural minerals; (2) manufacturers of mining and mineral processing machinery, equipment and supplies; and (3) engineering and consulting firms and financial institutions that serve the mining industry.

To understand the AMC position on wilderness, it is necessary to be aware of our position on multiple use and land use planning as well.

PUBLIC LANDS

The national security and general welfare of the United States depend on an adequate mineral supply at reasonable costs. This supply can be assured best by private sector exploration for and production of minerals from the public lands guided by policies which recognize that:

While large areas may be required for exploration purposes, a mining operation occupies a small area, providing a large resource output for the land area used.

Mineral development can be undertaken only where minerals occur.

Improved technology and economics may justify exploration in previously explored areas and the development of previously uneconomic deposits.

Security of title under the General Mining Law and adequate tenure under the mineral leasing acts are necessary to justify the large capital investment needed for mineral development.

The Mining and Minerals Policy Act of 1970 and the National Material and Minerals Policy, Research, and Development Act of 1980 declare it to be in the national interest to encourage private enterprise to develop a stable mining and mineral industry to meet national needs. The American Mining Congress urges Congress and the executive agencies to implement these statutes.

Social and environmental legislation and regulations, without benefit of adequate natural resource and economic data, have complicated, restricted, and in many cases denied mineral exploration and development

on public lands. This has eroded the ability of private industry to supply the nation's critical mineral needs and has resulted in increased costs to consumers, dependence upon insecure and unstable foreign sources, and adverse effects on balance of payments and national security.

AMC supports the revision of regulations to facilitate access and mineral development on public lands, review of all existing mineral withdrawals, revocation of those withdrawals that are unnecessary and limitation of additional withdrawals.

Multiple Use

AMC endorses the principle of multiple use management of public lands. Areas should not be closed to mineral exploration or mining in the absence of a rational and objective determination that a compelling national interest overrides the need for the minerals that may be supplied from those areas.

Public land management regulations designed to carry out single special purposes have multiplied and exceeded the intent and authority of the statutes under which they were promulgated. The cumulative result has been a serious curtailment of and a lengthened process for mineral exploration and development activities upon public lands. AMC urges that changes be made in these regulations to simplify the process for entry upon and development of minerals on public lands.

Wilderness Areas

In recognition of the continuing mineral demand and constant change in mining and exploration technology, Congress should amend the Wilderness Act to eliminate prohibitions on exploration and excessive restrictions on mining in wilderness areas. It should not legislate buffer zones for wilderness. Provision should be made for periodic review of existing wilderness.

BLM Wilderness Program. Lands under the jurisdiction of the Bureau of Land Management are being studied to determine their suitability for wilderness designation. The Department of the Interior has ruled that, during the study, nonimpairment restrictions will be placed on mineral activities in these wilderness study areas. The administrative interpretations and policies imposing these restrictions are contrary to law. The Department of the Interior should correct those interpretations and policies to conform to the Federal Land Policy and Management Act, and these lands should be opened to mineral exploration, appropriation, and development during the review process.

U.S. Forest Service Roadless Areas. With respect to lands reviewed for wilderness suitability by the Forest Service in its Second Roadless Area Review and Evaluation (RARE II):

- 1) The President should reconsider the excessive acreages recommended for wilderness.

- 2) Forest Service lands recommended for further wilderness study or recommended for wilderness, but not yet included in the Wilderness System, should remain open and be managed to allow mining pursuant to existing law.
- 3) Forest Service lands recommended for multiple-use management should be managed without further delay.
- 4) Congress should find the RARE II environmental impact statement to be legally sufficient.

Land-Use Planning

Land-use planning has become a means of restricting rights of mineral discovery, development and ownership. Several environmentally oriented federal statutes have resulted in direct and indirect land-use controls, including the Clean Air Act, Federal Water Pollution Control Act, Federal Land Policy and Management Act, Resource Conservation and Recovery Act, Endangered Species Act, Surface Mining Control and Reclamation Act, Coal Leasing Amendments Act and the Wilderness Act. Land use decisions made at the federal and state levels to implement these laws have too frequently resulted in indiscriminate segregation of lands from both public and private use.

AMC urges that all land-use legislation, planning proposals and implementation of existing statutes recognize the unique nature of mineral occurrences. Minerals can be mined only where they are found, and their discovery requires exploration of extensive areas. AMC opposes at all levels of government land-use regulations which unreasonably restrict the availability of domestic mineral supplies.

Environmentally sound operations are mandated by law. Accordingly, AMC urges government at all levels to:

- 1) Implement land-use planning in a manner consistent with the policy expressed in the Mining and Minerals Policy Act of 1970 and the National Materials and Minerals Policy, Research, and Development Act of 1980--that it is in the national interest to foster and encourage the development of domestic mineral resources and reserves.
- 2) Manage the lands in accordance with multiple-use principles.
- 3) Recognize that mining is among the highest and best uses of the land.
- 4) Periodically review administrative and legislative classifications of public lands for single uses that constrain access to and development of minerals.

WILDERNESS MANAGEMENT AND WILDLIFE

The goal of the Defenders of Wildlife is to preserve, enhance and protect the natural abundance and diversity of wildlife, including the integrity of natural wildlife ecosystems. To this end, Defenders of Wildlife recognizes wilderness designation as a significant management strategy of wildlife conservation and the ultimate form of wildlife habitat protection.

Under most circumstances, native wildlife populations benefit from the large, well-protected, relatively pristine and isolated habitat tracts associated with designated wilderness. Untrammelled nature is the best manager of a natural wildlife ecosystem. For large, wide-ranging species such as grizzly bears or wolves, large wilderness habitats are essential to survival. For species with smaller ranges, large wilderness habitats provide maximum opportunities for the population to establish natural distribution and density patterns, and to benefit from the wider degree of genetic diversity that may naturally result.

Wildlife management in wilderness habitats should be based on the fundamental assumption that human interference can be detrimental to the continued survival of wildlife communities. Natural fires or other catastrophies are disturbances for which wild populations are adapted, and which may cause changes in the composition or distribution of species but not permanent harm. Man-made habitat manipulations or other management strategies designed to enhance a particular non-endangered species or a group of species do not belong in wilderness.

Finally, wilderness designations offer substantial support to the U.S. Endangered Species Program as a complement to critical habitat designations. In some situations, such as the Northern Rockies where critical habitats for grizzly bear or the Selkirk caribou are not being designated, wilderness designations have become the best hope of survival for these species.

WILDERNESS MANAGEMENT

The Inland Forest Resource Council is an association of forest products companies that operate mills in Montana and Idaho. Our members and the local economies they support depend heavily on a sustained and predictable flow of timber from national forest lands. In some cases our dependence is nearly total. Maintaining an adequate supply of timber to keep our mills running and our people employed is the Council's primary goal.

Land withdrawals for wilderness purposes began in Montana in the early 1930's. Since that time, our industry has watched a steady erosion of the region's commercial forestland base. In 1964, for example, Idaho national forests included 2.6 million acres of lands allocated to wilderness and primitive areas. By 1981, Idaho's designated wilderness acreage had grown to over 3.8 million acres. Montana had about 1.8 million acres of wilderness and primitive areas in 1964. By 1981, we had 3.1 million acres of designated wilderness plus another million acres Congressionally designated for further study. The allocation debate continues today with "RARE II" adding even more acres to the list of lands that could potentially be withdrawn from the land base available for timber production. In short, we have seen fewer and fewer acres available each year to produce the timber we need to keep our mills running and foresee the possibility of even fewer acres in the future.

Disregarding for the moment the still unresolved issue of additional wilderness designations, our concerns about wilderness management boil down to the fact that the effects of wilderness management (or non-management) do not stop at wilderness boundaries. We are concerned that problems related to management of existing designated wilderness have the potential to even further erode timber harvest opportunities on the remaining non-wilderness lands outside the wilderness areas. Examples of our concerns include the following:

1. Buffer Zones. Some segments of the wilderness-using public have expressed concern that they can occasionally see or hear, from within designated wilderness, signs of management activities on adjoining non-wilderness lands. They argue that buffer zones are needed around wilderness areas to insure that the sight of cutting units, the sound of chainsaws, smoke from slash burning, and so on do not spoil their wilderness experience. The buffer zone concept has also been advocated for wildlife protection purposes. Our concerns with this concept are (a) that implementation of the buffer zone idea would eliminate additional thousands of acres from our already eroded commercial land base, and (b) that some folks would then argue that additional buffer zones are needed to buffer the buffer zones and so on ad infinitum.

2. Insects, Disease and Fire. The laws and regulations governing wilderness management generally prohibit active management (generally some form of timber harvest) to control insect and disease epidemics. We are concerned that major uncontrolled insect or disease problems originating within designated wilderness areas will spread to adjoining non-wilderness lands, including privately-owned lands. We are also concerned that fuel buildup resulting from uncontrolled insect and disease problems and extensive tree mortality on wilderness lands will create the potential for "slop-over" of catastrophic fires originating in wilderness areas. Neither insects, disease nor fire respect boundary lines. All have the potential to significantly impact management of forest lands outside the wilderness. Catastrophic fire also has the potential to seriously impact water quality, fisheries resources, and wildlife values both inside and outside the wilderness areas.

3. Recreation Demand. Although recreation and recreation values have often been cited as grounds for additional wilderness designation, recreation is in reality only a secondary spinoff value of maintaining lands in a wilderness state, not the primary goal. Our involvement in the Forest Service planning process has already shown us that recreation capacity in designated wilderness is significantly lower per acre than capacity in unroaded, nonwilderness lands. The Flathead National Forest's Draft Plan, for example, assumed a recreation use capacity of about 1.03 RVD's/acre/year for roadless non-wilderness lands as compared to only 0.298 RVD's/acre/year for designated wilderness (i.e. less than 30 percent of the capacity of non-wilderness lands). The net effect of these assumptions on their forest plan was a recommendation to allocate nearly 45,000 acres of productive non-wilderness timberlands to roadless recreation emphasis to meet anticipated roadless recreation demand. The proposed plan will drop annual timber harvest to a level roughly 25 percent below the forest's historic timber sale program. Here again, the decision to manage lands for wilderness has effects that extend beyond the wilderness boundary.

4. Wildlife and Endangered Species. Current interpretation of existing wilderness laws and regulations prohibits direct management activities in designated wilderness to enhance wildlife habitat and carrying capacity. As a result, lands outside wilderness are forced to carry a proportionately heavier share of the effort to maintain huntable big game populations and establish recovered populations of endangered species. The proposed Flathead National Forest Plan includes timber harvest constraints on more than 150,000 acres where timber harvest is either prohibited or scheduled only to improve habitat

conditions for grizzly bear, elk and deer. Again, the effects of wilderness management decisions have affected management opportunities on lands outside the wilderness boundary.

Given these kinds of concerns, specific questions we'd like to ask of this workshop include the following:

1. Are buffer zones needed or justifiable? Given the potentially severe adverse impact on available timber supply and dependent local economies, we don't think so. Establishment of "buffer zones" could become an interminable process.
2. How can the threat of catastrophic insect, disease or fire events originating within designated wilderness be minimized? Opportunities to consider could include integrated pest management practices on forest lands adjoining wilderness and judicious use of prescribed fire (or perhaps helicopter logging) within designated wilderness to supplement the role of "let burn" natural fires.
3. How can the recreation capacity of designated wilderness be increased without unacceptable impact on the wilderness resource? Inadequate funding for trail construction, maintenance, signing, trailhead facilities and visitor information appear to be the primary reasons that use of our wilderness areas is approaching capacity. We have suggested increased funding to meet these needs. Many acres of wilderness lands off the main trails are rarely, if ever, used by people. Construction of new trails, along with reconstruction and maintenance of existing trail systems could help disperse recreation use and increase recreation capacity. We recognize, however, that it's not the ultimate solution.
4. Should we allow prescribed burning in designated wilderness to improve wildlife habitat, to help meet endangered species recovery goals, and minimize the risk of catastrophic fires? We believe that the wildlife carrying capacity of designated wilderness areas could be increased substantially by judicious use of prescribed burning, without significant adverse impact on wilderness values. We further suspect that, by prohibiting practices that could lead to recovery of endangered species, existing wilderness legislation may be in conflict with the mandates of the Endangered Species Act. These legal restrictions may even jeopardize chances of achieving recovered populations. The role of fire management in wilderness management is an issue that must be addressed.

The forest products industry fully supports establishment of wilderness in appropriate areas and management of wilderness to provide

opportunities for people to enjoy the wilderness experience. Our primary concerns center on the potential adverse impacts of excessive wilderness designation and of the "side effects" of wilderness management decisions on the availability of timber to keep our mills running and our people employed. Hopefully, this workshop will help us find the best answers to these difficult questions.

Position Paper: National Cattlemen's Association, National Wool Grower's Association and Public Lands Council

GRAZING AND WILDERNESS MANAGEMENT

The grazing continuation clause was added to the Wilderness Act because it was felt that the impacts of livestock grazing were so generally minor that if grazing activities in the past had not rendered an area unsuitable for wilderness, their continuance was not likely to do so in the future.

Representatives of the Wilderness Society and the Sierra Club voiced no objection and continue to insist that "Grazing has no effect on wilderness and wilderness has no effect on grazing."

But does the above provision really mean that livestock grazing will continue in wilderness areas? Does it effectively "grandfather" existing grazing activities and facilities within wilderness areas?

Many members of Congress apparently thought so . . . and many ranchers originally thought so too.

The Department of Agriculture and the Forest Service, however, do not share these expressed views, although one has to look at the official policies and statements closely because they are often misleading. One must also look at how the official policies are being applied in the field.

In effect the Forest Service and the Department of Agriculture are interpreting the grazing continuation clause to mean that grazing cannot be banned per se within a wilderness area but this does not prevent them from imposing wilderness restrictions and requirements which will have the same effect. The Forest Service does not, and has never, considered the impact of these restrictions and requirements on the economic viability of the grazing operations. Intentionally or otherwise, USDA Forest Service grazing policies are predestined to phase out grazing in Wilderness Areas over a period of time.

USDA emphasizes that grazing is subject to other provisions of the Wilderness Act and all grazing activities must meet a test of whether they advance a wilderness purpose rather than a grazing purpose.

Forest Service regulations on wilderness management do not offer any further enlightenment on motorized or mechanized equipment use by grazers. However, on the grazing of livestock in general, the regulations state that the Chief of the Forest Service may prescribe special provisions covering grazing uses in wilderness areas generally and he "may arrange to have prescribed" special grazing restrictions in individual wilderness units. The regulations also state that the Forest Service Chief may permit, under whatever conditions he deems necessary, the maintenance, reconstruction, or relocation of livestock management improvements and structures.

The Forest Service policy adds that existing livestock management improvements may be maintained, reconstructed, or replaced "if essential to the management of domestic livestock grazed within provisions of the act." The policy says that any improvements requiring motorized equipment must be carefully evaluated and retained "only if there are no other alternatives." Such improvements must be removed or replaced with improvements not requiring motorized equipment. The only clue in the policy as to what "essential" means is that the policy emphasizes that grazing will be governed by the need to protect wilderness values.

In actual practice in existing wildernesses, motorized or mechanical uses are rarely approved. (Officials are hard pressed to recall any instances.) Theoretically, nearly anything can be done by primitive means; it just takes longer and costs more but economics play no part in determining what is "essential" as far as motorized equipment, livestock facilities or range improvements are concerned. "Essential" relates to wilderness--not to livestock grazing.

Construction of structural range improvements, such as fences, corrals, and water developments may be approved but only if necessary for proper management and/or protection of wilderness values, the Forest Service stated. "Structural improvements principally for the convenience of the user are not considered essential to management of the wilderness range resource."

The Forest Service policy says that "stockmen's cabins and pasture for pack and saddle stock used by visitors (and stockmen?) are principally for the convenience of the user and are not considered essential to management of the wilderness range resource."

The effects of these restrictions and requirements are to make grazing impractical in many areas. A Forest Service official admits "the increased management requirements of grazing stock in a wilderness often preclude an economical operation." Many grazers in existing wilderness areas have ceased--or are considering ceasing--operations. In some cases, it is the result of cumulative impacts. A permittee may be able to absorb the expense of using primitive means to perform maintenance on one occasion but not three or four times. (Unfortunately, cattle or sheep grown in wilderness do not bring a higher price than those raised elsewhere.)

Compared to the amount of livestock grazing occurring in the RARE II areas now being considered for wilderness and to the grazing in the Bureau of Land Management lands now being studied for wilderness, there is relatively little grazing in existing wildernesses. Therefore, the impact of present wilderness management policies, if unchanged, could have a significantly greater impact on the livestock industries and on the dependent economies of the western states in the future.

LIVESTOCK INDUSTRY POSITION

We believe that Congress ought to decide whether it wants livestock grazing in wilderness areas or not. If livestock grazing is to be allowed

to continue but under restrictions, then we believe that livestock ranchers should know what those restrictions are so we can plan our futures accordingly and so that the public and the Congress will have some idea beforehand what the impact of a specific wilderness proposal will have on this particular economic activity.

We believe that Congress should enact statutory language to insure that grazing activities existing in a wilderness area at the time it is designated wilderness are not phased out because of that designation.

The livestock industry supports alternative statutory proposals for maintaining grazing activities within wildernesses while protecting wilderness and resource qualities. They would incorporate into law the guidelines that have been agreed to by all interests.

GRAZING STATUTORY PROPOSAL

Notwithstanding any other provision of law, the following policies shall be followed by the Secretaries of Agriculture and the Interior with respect to grazing activities within all areas of the National Wilderness Preservation System:

1. Livestock grazing activities and facilities established in an area prior to the time it was designated as a unit of the wilderness system shall be allowed to continue; there shall be no curtailments of grazing permits, uses, or customary support activities solely because an area has been designated as wilderness, nor shall wilderness designation be used as a rationale for phased reduction of grazing uses and activities or, for elimination of support facilities; Provided, that the Secretaries of Agriculture and the Interior may, for the purpose of enhancing wilderness values, require alternative support activities or facilities that would not impose unreasonable additional costs on grazing permittees nor cause any decline in grazing use;
2. Adjustments in the numbers of livestock permitted to graze in wilderness areas may be made in the normal grazing management planning process giving consideration to the optimum forage conditions and the protection of the range resource;
3. The retention, maintenance, repair, reconstruction and replacement of structures, installations, improvements and other facilities existing in a wilderness area or established by an agreement with the land management agency prior to the area's classification as wilderness, shall be permitted in wilderness areas;
4. The construction of new grazing improvements and facilities shall be permitted in wilderness areas for the purpose of range resource protection and the more effective and efficient management of grazing resources, but not solely to accommodate increased numbers of livestock; the use of motorized equipment

for such new construction shall be permitted based on a rule of reasonableness and practicality;

5. The construction, reconstruction or replacement of facilities or improvements shall not be required to be accomplished using "natural materials," unless the material and labor costs of using natural materials are such that their use would not impose unreasonable additional costs on grazing permittees;
6. The use of motor vehicles and motorized equipment for the purposes of attending to livestock, the activities in subsection (3) and for responding to emergencies involving humans or livestock, shall be permitted, without prior consent, by express authorization in the grazing permits and leases for the wilderness area involved; Provided, that there are no practical alternatives available that would not impose unreasonable costs and hardships on the permittees or leasees involved.

VIEWS ON WILDERNESS MANAGEMENT

INTRODUCTION

The Sierra Club has had long experience with issues of wilderness management. Working with the land management agencies, the Sierra Club provided an early forum for discussion of these issues in its Biennial Wilderness Conferences, initiated in the 1950s. The Sierra Club conducts its own extensive Outing Program, and has long been studying issues of outings impact on wilderness.

SIERRA CLUB NATIONAL POLICY

In November 1977, the Sierra Club's Board of Directors adopted the following policy on wilderness management:

1. The Wilderness Act of 1964 is the basic charter for wilderness management direction. Wilderness management must recognize that wilderness is preserved for conservation, cultural, educational, historical, recreational, scenic, scientific and wildlife values.
2. Within the context of the Wilderness Act the primary wilderness management objective should be to protect "an enduring resource for wilderness" from significant degradation by man's influence and use.
3. Each wilderness possesses individual characteristics. The application of wilderness management techniques should reflect the individuality of each wilderness within the context of requirements to preserve the wilderness resource. Wilderness management plans should provide for flexibility in meeting conditions that vary with locatin and change with time.
4. Pre-existing nonconforming structures or uses may have been included when a wilderness was designated. Maintenance and/or replacement of such structures and continuation of such uses should be determined within the context of site-specific management requirements of each wilderness.
5. Wilderness serves as a benchmark, permitting comparison of relatively unmodified environments with other environments. The protection of this benchmark function may, in some cases, require limitations on use.
6. Wilderness management should allow the maximum range of public use opportunities consistent with the preservation of the wilderness resource. Within this limit, the experiences of

the individual user should not be manipulated or controlled. Limitation and/or zoning of use may be necessary to accomplish the protection of the wilderness resource. Management techniques which reduce impact on the wilderness resource in fairly non-restrictive or subtle ways should be employed before user restrictions which ration or control use. In such instances, user restrictions should be administered in a way which is as compatible as possible with the freedom that one normally seeks in wilderness.

7. In wilderness management, natural ecological processes should be allowed to operate freely to the maximum extent feasible to promote, perpetuate, and, where necessary, restore the wilderness character of the lands. Minimum manipulation may be allowed in order to restore man-disturbed environments or offset man-induced restrictions on natural processes.
8. The managing agencies should develop site-specific wilderness management plans for each wilderness. Development and adoption of such plans should require maximum public involvement at all stages, and the Sierra Club urges all concerned citizens to participate. In all instances the minimum tool practical for management should be used.
9. The results of continuing research and experimentation should be considered in periodic review of particular management plans.
10. Monitoring, measuring and scientific study of the wilderness environment should be allowed as long as it is as unobtrusive as possible. Restraint should be applied to and by the managing agencies over the impacts of research, experimentation and environmental monitoring so as to protect the resource and experience.

SPECIFIC MANAGEMENT ISSUES

Wilderness management issues have been much discussed during the long congressional consideration of the Wilderness Act, and in the consideration of legislation proposing each subsequent addition to the National Wilderness Preservation System. In the 1968-1978 period, several of the managing agencies adopted an excessively "pure" interpretation of the Wilderness Act's DEFINITION of wilderness suitability. Compounding that difficulty, these agencies failed to distinguish between the suitability criteria (set forth in subsection 2(c) of the Wilderness Act) and the management criteria (set forth in subsections of section 4 of the Act). Thus, the excessively "pure" interpretation came to dominate wilderness management policies.

In fact, the management provisions of the act were very carefully framed by the Congress to provide reasonable standards for wilderness managers. Oversight by the Congress in the mid-1970s led to correction of the agency misinterpretations. As a generality, the corrected agency

policies now much more closely correspond to the views of the Sierra Club and other national conservation organizations.

The following summary of specific issues provides the general position of the Sierra Club, as abstracted from testimony presented to the Congress:

Fire, insects, disease: The Forest Service may take necessary steps to control fire, insect outbreaks, and disease in wilderness areas. Those steps may include use of necessary mechanized equipment, building of fire roads, and other techniques usually used in fire fighting (including necessary cutting of trees). Fire towers are permitted in wilderness areas.

Whether a particular fire situation, insect problem or tree disease problem ought to be controlled is a matter for judgement in particular instances.

Patrol cabins: With changing management circumstances, the need for backcountry patrol cabins is largely past. However, section 4(c) of the Wilderness Act makes allowance for "minimum" structure and installations which are "necessary" for the administration of the wilderness area. In some circumstances, patrol cabins may be necessary, and the act allows the management flexibility.

Grazing: Grazing of domestic livestock, where previously established, is specifically allowed in wilderness areas under subsection 4(d)(4)(2) of the act. Facilities necessary for this allowable use, such as waterholes or water tanks, drift fences, and the like are also permissible, and such facilities may be maintained in a manner least detrimental to the wilderness. For example, a water hole may be cleaned out periodically--as Congress clearly established when considering the Sycamore Canyon Wilderness (Arizona) during the 93rd Congress.

Fisheries management: Management techniques for fish may be utilized in wilderness areas. Generally, wilderness areas provide for excellent fisheries habitat, inasmuch as watershed damage (as from logging) is avoided. Under particular circumstances, management actions are permitted by the law, such as fish traps, stream blockages, clearance of blocked channels for anadromous fish runs. Planting of fish, including aerial drops into high mountain lakes, are permitted within wilderness areas (as was established in the legislative history of the Alpine Lakes wilderness legislation).

Motorized equipment: The act prohibits use of motorized equipment within a wilderness area (except for established use of motorboats, and landing of land-based float airplanes, as discussed below). However, the agency may use mechanical and motorized equipment in circumstances where it is "necessary" (and not simply for the convenience of the manager). Clearing four blow-downs per mile of trail does not necessitate a chainsaw, but an unusually severe windstorm may leave hundreds of blow-downs per mile, and in such a situation, use of a chainsaw to clear the trail could be determined necessary.

Motorboats/landing of aircraft: The Wilderness Act explicitly allows the Secretary to permit the continued use of motorboats and landing of aircraft (either float planes or land-based planes on landing strips) within wilderness areas, where previously established. (Reference: subsection 4(d)(1). The use of float planes for access is a traditional and necessary use in a number of wilderness areas, notably in Alaska. Nothing in the act prohibits such landings.

Trails, bridges, trail signs: Trails are permitted in wilderness under the Wilderness Act, of course, new trails may be developed. Bridges may be provided, preferably of rustic design and native materials (a log foot-bridge rather than a steel-beam suspension bridge--except where such a structure is truly necessary). Trail signs are permitted.

Campsite facilities: Camping is a traditional use of wilderness areas, and facilities for this use have been and are provided, as the Wilderness Act allows. Here, too, the facilities are provided to protect the wilderness, and are not simply for the comfort and convenience of the users or the managers. Fire rings, tent sites, development of portable water supplies (including hand pumps) are allowed, but picnic tables are not.

Sanitary facilities: The Wilderness Act does not prohibit primitive sanitary facilities where these are necessary for the protection of the wilderness (including its water quality) or for the health and safety of the user. The facility should, in each case, be of the minimum type and standard. In some instances, where there is little or no soil over bedrock and where risk of water pollution is extreme, contained, vault-type privies would be the "minimum necessary" and would be permissible under the law.

Rustic trailside shelters: With the advent of light-weight back-packing tents, the need for constructed lean-tos and shelters has largely ended. Shelters can cause serious management problems by attracting concentrated use, with serious site impacts. In most wilderness situations shelters are not necessary. Existing ones can be maintained, as prior nonconforming uses, but ought not be replaced. However, under the management provisions of the Wilderness Act, in subsection 4(c), a shelter may indeed prove to be "necessary" for the protection of the wilderness or the health and safety of the user, and if they meet that test, the Wilderness Act would not exclude them.

Cabins for public use: In general, "cabins" for public use are not permitted in wilderness areas. But again, rather than a rigid rule, the particular circumstances need to be considered with a flexible approach--as the Wilderness Act intended. The test of subsection 4(c) is to be applied: is there a need for such a structure, as a user? In most circumstances, the clear answer would be "no," and there are not many such cabins in wilderness areas. But in uncommon circumstances of remoteness and ruggedness, and in conjunction with management needs, circumstances exist where such cabins for public use can be justified.

For example, the larger, remote wilderness areas of southeast Alaska have some existing cabins of this kind, provided in conjunction with management needs by the U.S. Forest Service. Many of these so-called "cabins" are small A-frame structures, not far advanced beyond the kind of screened-in shelters which the Congress included in the Isle Royale Wilderness.

Commercial services: Commercial services are generally barred in wilderness areas, except that the Wilderness Act, in subsection 4(d)(6) expressly provides for those commercial services which are to further the recreational purposes of the wilderness areas. This would include the kind of traditional guiding and outfitting services associated with river rafting trips, guided fishing trips, and hunting outfitter services.

Under this specific provision of the act, the facilities necessary to carry out these services consistent with the purposes of the wilderness are permissible, including such things as corrals, hitching posts, sanitary facilities, and the like.

In larger wilderness areas, the Forest Service has the flexibility under the law to work with outfitters to locate hunting camps for least conflict with summertime wilderness use patterns. Caches for over-winter storage of allowed equipment not readily removable are entirely appropriate.

Water resource development: Existing water resource developments, including established check dams, diversion ditches, reservoirs, old water conservation works, and the like can be included within a wilderness area. Such established water resource features may be maintained, using means least detrimental to the wilderness. There was a specific dispute on this question, when the Congress considered the Desolation Wilderness in 1968, and the House of Representatives settled the matter by including within that wilderness area two reservoirs which had long been present, but which some had proposed to exclude from the wilderness boundary.

There are numerous small check dams, diversion ditches and similar features within existing wilderness areas.

New water developments may be allowed in an existing wilderness area, but upon specific order of the President, consistent with the limited authority found in subsection 4(d)(4)(1) of the Wilderness Act.

Utility lines: In general, permanent utility lines would not be included within a wilderness area. However, as with other prior established uses, mechanisms are available to deal with such lines which already exist where a wilderness area is being proposed.

Snow gauges, water measuring devices, telemetering equipment: Many wilderness areas include snow courses, snow pillows, water level measuring devices, and telemetering equipment for transmitting data from these devices. Such facilities are permissible under the

Wilderness Act, as they conform to the purposes of that Act, which are supplemental to the purposes for which the national forest itself was established.

As is the general rule, these facilities should only be placed in a wilderness area when necessary, and should be of a minimal impact (using minimization wherever possible). Over time, as techniques for these measurements become more sophisticated, it should be possible in many cases to correlate data with other measurements from outside the wilderness, and eventually to minimize the need for facilities within the boundaries.

The complex problems of management of people in their use of wilderness areas cannot readily be summarized in a short statement of policy. The Sierra Club continues to work closely with the wilderness management agencies as they address these problems.

MANAGEMENT OF WILDERNESS USE

STATEMENT OF PROBLEM

Wilderness designation alone does not suffice to ensure the preservation of wild places. Proper management of use is imperative to prevent the degradation of the values for which wilderness areas were designated; otherwise, they may become empty shells--wilderness in name only. Recreation overuse or misuse may result in areas being "loved to death." Overdevelopment to accommodate excessive use or inappropriate types of use can also erode wilderness. "Nonconforming" uses legally allowed under special conditions--such as livestock grazing and administrative activities--can also impair wild character. Management is needed to ensure first and foremost that the natural integrity of wilderness is protected in perpetuity and that other uses are kept consistent with its primary objective.

DISCUSSION

As defined in the 1964 Wilderness Act, "A wilderness, in contrast with those areas where man and his own works dominate the landscape, is . . . recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." Wilderness areas, according to the Act,

shall be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired for future use and enjoyment as wilderness, so as to provide for the protection of these areas (and) the preservation of their wilderness character.

In other words, the Act directs the managing agencies to maintain the processes of nature essentially uninterrupted, with man as an observer who does not interfere with, and certainly does not degrade, the wilderness resources. Furthermore, the Congress has made no distinction regarding wilderness characteristics of areas in different regions of the country or managed by different agencies (although the special exceptions in section 4 of the Act do not apply to the National Parks or Wildlife Refuges). Because of a variety of growing pressures, however, effective management of use is increasingly needed to meet the "nondegradation" mandate of the Wilderness Act.

The single greatest threat to wilderness is its potential invasion by exploration and development of fossil fuels and minerals. Permission of such use by the government would destroy quintessential wilderness qualities or, at best, require decades or centuries to restore. The Wilderness Society is unalterably opposed to government action which might open wilderness areas to such destructive use.

Except for this new threat, recreation use is the foremost pressure on wilderness with a steady increase of about 7 percent in visitation each year (1980 assessment). In many cases soils at campsites are becoming compacted and eroded, and vegetation is being damaged or destroyed. Wildlife may suffer from harassment, most of it unintentional; quiet and solitude may be difficult to find in some places, almost impossible in others. Concentration of recreation pressure is compounded in some cases by poor trail maintenance due to budget constraints and in other cases by inadequate measures to disperse visitor use patterns. Also, many existing trails were built years ago for fire control and are poorly located for resource protection or a quality visitor experience. In still other cases, there has been a tendency to design and install trails and other visitor facilities that are excessive in scope and design and, as such, are inconsistent with the preservation of wilderness character.

The Wilderness Act also grants the managing agencies considerable latitude for the protection of wilderness and its visitors when and where necessary by maintaining, for example, minimum sanitation facilities, fire protection necessities, and structures for administrative use. The agencies in the past have vacillated between overly strict and overly permissive views of what activities are appropriate given the general mandate to ensure an enduring wilderness resource.

Congress provided for continued livestock grazing in wilderness where such grazing was established prior to designation of the area as wilderness. In 1980, House Report 96-1126 set forth some policy guidelines for the agencies to follow in administering such grazing. The thrust of these guidelines is to provide for reasonable continuation of such grazing--so long as the range resource is not deteriorated--while minimizing impacts on wilderness values.

POLICY STATEMENT

The many valid benefits we derive from wilderness depend on the preservation of its undisturbed natural integrity. Management of wilderness ecosystems and their related uses should be judged against the goal of preserving natural integrity unimpaired and should be guided by the following principles: (The Wilderness Society has already addressed the question on mineral activities in its policy statement adopted on June 5, 1981.)

1. The purpose of wilderness management should be the maintenance, and, if need be, the restoration of a dynamic equilibrium of natural forces. Nondegradation of and noninterference with natural processes are fundamental. The goal is free play of natural forces, not any particular static condition. For example, the Wilderness Society generally supports a policy of allowing natural fires to play their ecological role in wilderness, with due regard for public health, safety and welfare in surrounding non-wilderness areas. (In addition, careful experimental burning may be considered to restore the natural equilibrium in fire-dependent ecosystems where decades of fire exclusion by man has led to unnatural conditions.)

2. Administrative activities should be guided by the concept of the "minimum tool." Managers should use only those tools, structures, equipment or practices that are the minimum necessary to protect the wilderness resource. Equipment used in such circumstances should be those that cause the least impact on wilderness values. Motorized access or other motorized equipment should be used only in emergency situations where necessary to protect visitor health or safety or the wilderness resource. Minimum necessary structures, such as trails or bridges, should be designed to blend into the wilderness environment to the maximum extent possible.
3. Necessary management actions should be based on clearly defined objectives that describe desired wilderness conditions and are set forth in individual area management plans prepared with full public involvement. Formal plans are needed to establish clear objectives for each Wilderness Area and to define policies and actions by which these objectives will be pursued. The Wilderness management plan must be for a wilderness as a whole and indivisible unit, and not subdivided by agency administrative units. Regulations and overall management objectives must be consistent over an entire Wilderness Area. The plans are useful in facilitating continuity in management policies and practices, despite changes in administrative personnel or agency. Each plan should address specific issues, such as fire, insect and disease, recreation trails, permits, access, fish and wildlife, and give special attention to commodity uses such as grazing, mining or oil and gas leasing for the period during which they may be legally permitted.
4. Visitor freedom should be a management goal. Wildernesses are to provide "outstanding opportunities for solitude or a primitive and unconfined type of recreation." Wilderness management must recognize "unconfined" recreation as one of the major appeals of wilderness. Wilderness use capacities of wilderness areas should be carefully determined to provide the highest quality wilderness experience possible consistent with keeping visitor impacts at acceptable levels. Regulation and control of visitors should follow the "minimum tool" concept (policy 2, above).
5. Management should include a rigorous system of monitoring of use as well as the provisions for managing use. Such monitoring should provide the basis for preventing resource damage or deterioration as well as the basis for improving management.

The purpose of management is to restore past damage and to prevent future damage from occurring. Monitoring can provide the information to test how well the management

actions are working and also serve as an early warning system to detect damage in its initial stages. Such knowledge is fundamental to making the adjustments needed to sound management.

WILDERNESS MANAGEMENT, PRACTICES AND PROBLEMS ON THE
NATIONAL FORESTS

The Forest Service pioneered the development of wilderness philosophy--beginning with the establishment of the primitive area in 1933. From that time until 1964, Forest Service wilderness policy and practices, as specified in Secretary of Agriculture regulations, continued to evolve. Since passage of the 1964 Wilderness Act, wilderness management and practices have been anchored on the philosophy and specifics of that act. It took the Congress eight years of debate on 65 different wilderness bills before agreement was reached on the wording of the bill which was passed. Thus the definitions and terms of the act were well thought out and chosen. Time has not changed the meaning of the original intent.

Wildernesses are established to preserve ecosystems where natural processes operate freely, unmodified by man. Manipulation of the natural process deliberately to enhance human use or enjoyment is questionable at best, if not totally unacceptable. The objective stated in the 1964 Wilderness Act was ". . . to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States . . ." The exceptions permitted in the act do not permit complete attainment of this objective, but our practice must try to come as close as possible to the ideal. Where past actions have modified the ecosystem, we should adopt future practice and management actions that will reverse the trends caused by past actions as much as possible.

We do not try to manage wilderness as it might have existed at any given point in time--which point would we select? We manage today for the future, allowing the natural forces in nature and the uniqueness of the ecosystem to operate as freely as possible, recognizing that wilderness does not exist in a vacuum, but is an integral part of a larger contiguous land base.

The Wilderness Act, in its seven pages, defines the direction for policy in the following statements:

"To assure that an increasing population accompanied by expanding settlement and growing mechanization does not occupy and modify all areas within the United States."

"Secure for the American people of present and future generations the benefits of an enduring resource of wilderness."

Wilderness practice has been guided by the following words of the Wilderness Act:

"Where the earth and its community of life are untrammelled by man, where man is a visitor who does not remain."

"Land retaining its primeval character and influence, without permanent improvement or human habitation."

"Generally appears to be affected primarily by the forces of nature with imprint of man's work substantially unnoticeable."

Special provisions or exceptions were also specified in the act for: existing private rights, fire control, emergencies, insect and disease control, mining, water facilities, outfitters and guides.

These special provisions are permitted under conditions that will preserve the character for which the area was created.

The problems and challenges of wilderness management are all related to the above mentioned policy, practices and special provisions.

WILDERNESS MANAGEMENT POLICY
A SUMMARY

BASIC CONCEPTS

Policies and guidelines follow three basic concepts:

- Wilderness character should be preserved.
- Public use for recreational, scenic, scientific, educational, conservation and historic use should leave the area unimpaired for future use as wilderness.
- Certain nonconforming uses are acceptable; as specified in the Wilderness Act.

GENERAL POLICIES

The general wilderness management policies include:

Naturalness: Natural ecosystems and ecological processes are to continue to function naturally and with minimal human influence.

Solitude: Natural settings are preserved and evidence of human activity is minimized.

Special Features: Ecological, geological, historic, among other special features, are preserved unimpaired.

Visitor Use: Only the minimum facilities necessary for the health and safety of visitors or for protection of the wilderness resource are to be installed. When use of an area threatens to impair wilderness character, the use will be managed or limited to prevent impairment.

Wilderness Management Plan: A management plan will be prepared for each designated wilderness area, applying national policies to the situation in the specific wilderness.

ACCEPTED USES

Accepted uses in wilderness include:

- Camping, hiking, cross country skiing, stockpacking, rockhounding.
- Rafting, canoeing.
- Hunting, fishing, noncommercial trapping.
- Scientific and educational studies of biological, geological, cultural, and historic features.

NONCONFORMING BUT ACCEPTED USES

The most significant include:

- Valid existing rights such as valid mining claims.
- Aircraft and motorboat use where already established.
- Control of fire, insects, and diseases where they threaten life, property or resources outside the wilderness.
- Use and maintenance of existing water resource facilities.
- Access to non-federal lands surrounded by wilderness.
- Livestock grazing, mining, mineral leasing.

Mining

- Wilderness is open to location of new claims until 12/31/83; withdrawal takes effect then, per Wilderness Act.
- Operations are regulated to accomplish rights of claimant while minimizing impact on the wilderness resource.
- Plans of operations are required, except for casual use without motor vehicles.
- After 12/31/83 BLM will verify whether or not a valid claim exists.

Mineral Leasing

- Wilderness is open to mineral leasing until 12/31/83; withdrawal takes effect then, per Wilderness Act (Secretary Watt has subsequently directed that no mineral leases shall be issued).

Livestock Grazing

- Continues where already established.
- No curtailment of grazing simply because an area is designated. Any adjustments in the number of livestock made through normal grazing and land management planning and policy-setting processes.
- Facilities used in livestock operations, such as fences, line cabins, and stock tanks, may be maintained and replaced. New livestock grazing facilities may be constructed if they are needed to protect the rangeland and/or wilderness resource, rather than to accommodate increased numbers of livestock.
- Motorized equipment may be used occasionally to maintain livestock facilities or manage livestock where practical alternatives do not exist.

Fire, Insect, and Disease Management

- Fires will be controlled to prevent loss of human life or property within wilderness or to prevent the spread of fires outside where life, resources, or property may be threatened. Human-caused wildfires will be prevented and/or controlled unless they meet wilderness fire management objectives.
- To return some wilderness ecosystems to a more natural state, it may be appropriate to allow natural fires to burn, but only in conformance with an approved fire management plan and the overriding guidance in the preceding paragraph.
- Prescribed burning may be allowed to meet specific objectives listed in the management policy.

GENERALLY PROHIBITED

In general, there are to be no permanent or temporary roads, use of motor vehicles, motorized equipment, or motorboats, landing of aircraft, structures or installations, or commercial enterprises.

There are to be no buffer zones outside wilderness areas.

WILDERNESS MANAGEMENT POLICIES

Units of the National Wildlife Refuge System have been established by diverse legal means and are administered for a variety of wildlife program purposes. The establishment of each wilderness unit is within and supplemental to the purposes for which a specific unit of the National Wildlife Refuge System was established and is administered. Each wilderness shall be administered for such other purposes for which the national wildlife refuge was established and shall be also administered to preserve its wilderness character.

Except as otherwise provided by law, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use and shall be administered in such a manner as will leave them unimpaired for future use and enjoyment as wilderness.

Rules and regulations governing administration of the National Wildlife Refuge System apply to wilderness units where said rules and regulations do not conflict with provisions of the Wilderness Act or Act of Congress which establishes the wilderness unit.

Except as specifically provided and subject to existing private rights, there shall be no commercial enterprise and no permanent road within a wilderness unit, and except as necessary to meet minimum requirements for the administration of the area (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 mechanized transport, and no structure or installation within any such area.

The Director may authorize occupancy and use of a national wildlife refuge by officers, employees, agencies, and agents of federal, state, and county governments to carry out the purposes of the Wilderness Act and the Act establishing the wilderness and will prescribe conditions under which motorized equipment, mechanical transport, aircraft, motorboats, installations, or structures may be used to meet the minimum requirements for authorized activities to protect and administer the wilderness. The Director may also prescribe the conditions under which such equipment, transport, aircraft, installations, or structures may be used in emergencies involving the health and safety of persons, damage to property, violations of civil and criminal law, or other purposes.

The Director may permit, subject to such restrictions as he deemed desirable, the landing of aircraft and the use of motorized equipment at places within a wilderness where such uses were established prior to the date the wilderness was designated by Act of Congress as a unit of the National Wilderness Preservation System.

Public uses of a wilderness unit will be in accordance with the purposes for which the individual national wildlife refuge was established and is administered and laws and regulations governing public uses within the National Wildlife Refuge System.

- a) When public uses are authorized within a wilderness unit, the Refuge Manager may regulate such use. Regulating will include limiting the numbers of persons allowed in the wilderness at a given time, imposing restrictions on public uses, requiring a permit or reservation to visit the area and similar actions.
- b) All persons entering a wilderness unit will be required to remove such materials as they carry in.
- c) Informational signs for the convenience of visitors will not be permitted in a wilderness unit; however, rustic directional signs for visitor safety may be installed in locations appropriate to a wilderness setting.
- d) Limited public use facilities and improvements may be provided as necessary for the protection of the refuge and wilderness and for public safety. Facilities and improvements will not be provided for the comfort and convenience of wilderness visitors.
- e) Public services and temporary structures generally offered by packers, outfitters, and guides for realizing the recreational or other wilderness purposes of a wilderness may be permitted. Temporary installations and structures which existed for these subsistence purposes under valid special use permit or easement when the wilderness was established may be continued if their use is necessary to administer the refuge for the purposes for which it was established and for wilderness purposes. The number, nature, and extent of such temporary structures and services will be controlled through regulations and special use permits issued by the Refuge Manager so as to provide maximum protection of wilderness resources and values.
- f) Hunting and fishing in a refuge wilderness will be in accordance with federal and state regulations including special regulations for the specific wildlife refuge. Hunting or fishing which requires motorized equipment will not be permitted except as provided by special regulations.

To the extent necessary, the Director shall prescribe measures to control wildfires, insects, pest plants, and disease to prevent unacceptable loss of wilderness resources and values, loss of life, and damage to property.

Forest Management activities in a wilderness unit will be directed toward allowing natural ecological processes to operate freely. Commercial harvesting of timber shall not be permitted except where necessary to control attacks of insects or disease.

The grazing of livestock, where established prior to the date of legislation which designates a wilderness unit, may be permitted to continue in accordance with special provisions which may be prescribed for individual units. Numbers of permitted livestock will not be more liberal than those utilizing a wilderness prior to establishment and may be more restrictive.

Controlled burning will be permitted on wilderness units when such burning will contribute to the maintenance of the wilderness resource and values in the unit; however; any fire in a wilderness area that poses a threat to resources or facilities outside the unit will be controlled and extinguished.

Recognizing the scientific value of wilderness, research data gathering and similar scientific uses will be encouraged providing that wilderness values are not impaired. The person or agency involved in scientific investigation must be willing to accept reasonable limitations on activities and location and size of the area to be used for research purposes. A special use permit authorizing scientific uses shall be required.

WILDERNESS PRESERVATION AND MANAGEMENT

The National Park Service will preserve an enduring resource of wilderness in the National Park System as part of the National Wilderness Preservation System, to be managed for the use and enjoyment of wilderness values without impairment of the wilderness resource.

From the earliest beginnings of the National Park System, the concept of wilderness preservation has been an integral part of park management philosophy. In the ensuing century, the national park movement has been a focal point for an evolving wilderness philosophy within our country.

In 1964 the efforts of the wilderness movement were capped by passage of the Wilderness Act (P.L. 88-577, 78 Stat. 890). The main thrust of the Act was to establish a National Wilderness Preservation System and provide for the study of federal lands in the national forests, wildlife refuges, and the National Park System for inclusion in the system. Consistent with the Wilderness Act, no park area may be designated as wilderness except by an act of Congress.

The Wilderness Act specifies that designation of a park area as wilderness shall in no manner lower the standards evolved for the use and preservation of such park in accordance with the Act to Establish a National Park Service, August 25, 1916 (39 Stat. 535), and other applicable legislation.

Wilderness areas shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, including "outstanding opportunities for solitude or a primitive and unconfined type of recreation." Thus, the preservation of wilderness character and values is the prime administrative responsibility of the service, and activities to achieve other legal purposes of areas designated as wilderness must be administered so as to preserve the wilderness character. The public purposes for which park wilderness shall be managed relate to recreational, scenic, scientific, educational, conservation, and historical uses.

The National Park Service has conducted wilderness studies in conformity with the Wilderness Act, and the Secretary of the Interior has submitted legislative recommendations to the President and the Congress for designation of park areas as wilderness. The service will continue wilderness studies on parks authorized since the passage of the Wilderness Act wherever required or desirable.

The policies contained in this chapter relate specifically to park wilderness or to park areas that have been studied and recommended for wilderness designation. Policies of general application to parks are contained in other chapters and are not repeated here. The service's

wilderness policies may vary from those of the Forest Service and the Fish and Wildlife Service, based on the differing missions of the three agencies. All, however, have as their goal the preservation of wilderness character.

The service has traditionally used the term "backcountry" to refer to primitive, undeveloped portions of parks. This, however, is not a specific land classification, but refers to a general condition of land that may span several of the service's land classifications that are essentially undeveloped and natural in character. Where the term wilderness is used, it will apply only to congressionally designated wilderness or to areas being studied or proposed for wilderness designation. The park "backcountry" would include the designated or proposed wilderness, but could also include other roadless lands which contain minor developments not appropriate in wilderness and provide for a number of different park purposes and activities.

WILDERNESS REVIEWS

The service will continue to review areas that qualify for wilderness study, consistent with provisions of the Wilderness Act and subsequent legislation directing that wilderness studies be made. Wilderness studies shall be subject to compliance with the Procedures for the Protection of Historic and Cultural Properties promulgated by the Advisory Council on Historic Preservation. (See The General Management Plan II-2, Wilderness Study Review II-8.)

Protection of Roadless Study Areas

Roadless study areas subject to review for wilderness designation will be protected from activities which would endanger or alter their natural, primitive character until administrative study or the legislative process determines their suitability for wilderness designation.

Nature of Wilderness Land

The Act defines wilderness, in part, as undeveloped federal land retaining its primeval character and influence which

. . . generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable . . .

In interpreting this section, the service considers lands that have been logged, farmed, grazed, or otherwise utilized in ways not involving extensive development or alteration of the landscape as qualifying for consideration of inclusion in wilderness qualities, management will be directed toward restoration of wilderness character.

Management Considerations

An area will not be excluded from a wilderness recommendation solely because established or proposed management practices require the use of tools, equipment, or structures if those practices are necessary for the health and safety of wilderness travelers or protection of the wilderness area.

Grazing and Stock Driveways

Lands will not be excluded from a wilderness recommendation solely because of prior rights or privileges, such as grazing and stock driveways, provided these operations do not involve the routine use of motorized or mechanical equipment and do not involve development and structures to such an extent that the human imprint is substantially noticeable. (See Grazing IV-5.)

Historic Features

Historic features which are primary attractions for park visitors are not included in wilderness. However, an area that attracts visitors primarily for the enjoyment of solitude and unconfined recreation in a primitive setting may also contain historic features and still be included in wilderness. Typical historic features which may be included are archeological sites, historic trails, travel routes, battle sites, and minor structures. Historic trails may serve and be maintained as part of the wilderness trail system. However, if the planned scope and standard of maintenance would result in the imprint of man's work being substantially noticeable, the trail or other feature should not be included in wilderness. (See National Trails System I-13.)

Potential Wilderness Additions

When non-qualifying lands are surrounded by or adjacent to an area proposed for wilderness designation, and such lands will within a determinable time qualify and be available federal land, a special provision should be included in the legislative proposal which would provide for the future designation of these lands as wilderness upon publication in the Federal Register of a notice by the Secretary of the Interior that all uses thereon prohibited by the Wilderness Act have ceased.

Mining or Prospecting

Any recommendation that lands presently subject to mineral exploration and development be designated wilderness will only be made subject to the mineral interests being eliminated. (See Mineral Exploration, Leasing, and Mining IV-6.)

Utility Lines

Lands containing above-ground utility lines are not included in recommended wilderness. Areas containing underground utility lines may be included if the area otherwise qualifies as wilderness and the maintenance of the utility line does not require the routine use of mechanized and motorized equipment. No new utility lines are to be installed, and existing utility lines may not be extended or enlarged. (See Utilities III-7, Utility and Transportation Corridors and Rights-of-Way VII-15.)

WILDERNESS USE

Wilderness is recognized in the Wilderness Act as an area

. . . where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.

The visitor must accept wilderness largely on its own terms. Modern conveniences are not provided for the comfort of the visitor; and the risks of wilderness travel, of possible dangers from accidents, wildlife, and natural phenomena must be accepted as part of the wilderness experience.

For a majority of park visitors, park wilderness will be appreciated primarily from outside wilderness boundaries as part of the park scene, viewed from park roads and developments. To them, as well as to the visitor who hikes into the wilderness, protection of the wilderness character is essential to the quality of the park experience.

Information on Wilderness Use

Information on wilderness and backcountry use will be available in each park having such resources, specifying

- the kinds of clothing and equipment necessary for such use;
- special dangers of wilderness use and precautions to be observed by the user; and
- regulations regarding wilderness and backcountry use.

(See Information and Orientation VII-2, Environmental Education VII-5, Visitor Safety and Protection VII-24.)

Limitation of Wilderness Use

If necessary to preserve the wilderness character, the service will limit or disperse use through a variety of means best suited to the particular wilderness concerned. (See Limitation of Visitor Use VII-1.)

Overnight Use

The service may designate campsites where the protection of resources dictates the need. Campsite facilities are to be the minimum necessary for the health and safety of the wilderness traveler and for the protection of the resources. Facilities may include an identifying site marker, pit toilet, tent sites, and unobtrusive fire rings. (See Overnight Accommodations II-8, Backcountry Use VII-10.)

Day Use

In smaller wilderness areas where the use pattern is essentially day use, provision of campsites may not be necessary, or they may be provided outside of wilderness boundaries.

Commercial Services

Guide services for horseback trips, hiking, mountain climbing, boat trips and similar services designed to provide opportunities for the enjoyment of primitive and unconfined types of recreation or other wilderness purposes of the area are permissible under careful control by each park as to their nature, number and extent. Structures or facilities in support of such commercial services are not permitted within wilderness. (See Backcountry Commercial Services VII-12, Establishment via Prospectus VII-3.)

Caches

The storage of boats or other equipment by the public is not permitted. All equipment brought in must be taken out at the end of each wilderness trip.

Research

The service, recognizing the scientific value of wilderness areas as natural outdoor laboratories, permits those kinds of research and data gathering which require such areas for their accomplishment, and which will not adversely modify either the physical or biological resources and processes of the ecosystems, nor intrude upon or otherwise degrade the aesthetic values and recreational enjoyment of wilderness environments. All activities must be in accord with wilderness management policies. (See Information Base II-1, Science Program IV-2, Research and Collecting Permits VII-20.)

Refuse Disposal

Refuse may not be disposed of within wilderness, except for the burning of combustible materials where campsites are permitted. The "carry out" concept will be implemented by each park containing wilderness. (See Backcountry Sanitation VII-12.)

Hydrometeorologic Devices

Hydrologic or hydrometeorologic devices are usually permanent or semi-permanent installations used to gather water and climatic data related to the management of resources outside of the wilderness. Such existing devices may be retained in wilderness. New or additional devices should not be placed in the wilderness, except upon a finding by the Secretary of the Interior that essential information cannot be obtained from location outside of wilderness and that the proposed device is the minimum tool to successfully and safely accomplish the objective. The installation, servicing, and monitoring of these devices shall be accomplished by such means as will assure human safety and will result in the minimum permanent and temporary adverse impact upon the wilderness environment. (See Use of the Minimum Tool or Equipment VI-6.)

WILDERNESS MANAGEMENT

Use of the Minimum Tool or Equipment

In the management of wilderness resources and of wilderness use, the service will use the minimum tool necessary to successfully, safely and economically accomplish its management objectives. When establishing the minimum tool, economic factors should be considered the least important of the three criteria. The chosen tool or equipment should be the one that least degrades wilderness values temporarily or permanently. Accepted tools, equipment, structures and practices may include but are not limited to: fire towers, patrol cabins, pit toilets, spraying equipment, hand tools, and fire-fighting equipment. The specifics of wilderness management for a given park will be included in the park's backcountry management plan.

A detailed discussion of the minimum tool and the specific approval authority required are provided in the backcountry/wilderness management guidelines. Specific approval is required for the non-emergency use of motorized or mechanical equipment, the installation of new facilities or the modification of existing facilities in wilderness.

Motorized or Mechanical Equipment

1. As a general rule, use of motorized equipment or mechanical transport by the public is not allowed. Boating with hand propelled craft is an acceptable use of wilderness. Language customarily used in the National Park Service's recommended wilderness legislation would make application to the National Park service a special provision of the Wilderness Act pertaining to the use of aircraft and motorboats. Under this provision, where the use of aircraft and motorboats has already become established, the use may be permitted to continue subject to such restrictions as the Secretary of the Interior deems desirable. This does not mean that previously

established motorboat and aircraft uses of an area must be allowed to continue upon the designation of that area as wilderness, or that water areas must be excluded from wilderness recommendation where motorboats are involved. Any recommendation to allow established aircraft or motorboat use to continue in wilderness would be based upon a finding that the purpose, character, and manner of such use is suitable to the specific wilderness under consideration.

2. Administrative use of motorized equipment or mechanical transport, including motorboats and aircraft, is permitted only as follows:
 - a. In emergency cases involving the health and safety of wilderness users or the protection of wilderness values.
 - b. As necessary to meet the minimum needs of management to achieve the purpose of the area.

(See Aircraft Operations VII-14.)

MANAGEMENT FACILITIES

Wilderness is defined, in part, as undeveloped federal land retaining its primeval character and influence, without permanent improvements. Facilities are permitted only as necessary to meet the minimum requirements for the administration of the wilderness area.

Roads

Permanent roads are not permitted in wilderness. Where wilderness includes abandoned roads, their use by vehicles is not permitted and the road should be restored to a natural condition. Temporary vehicular access is permitted only to meet the minimum requirements of emergency situations.

Trails

Narrow, unpaved foot and horse trails are permissible. Trails intended for foot travel only will be maintained, generally, to a width sufficient for persons to walk single-file. Trails intended for combined foot and horse travel, or for horse travel only, will be maintained to a width sufficient for horses and their riders to travel single file. Trail bridges are permitted at stream crossings if the crossing, without a bridge, would be unsafe during the normal period of use. (See Trails and Walks III-4.)

Heliports, Helipads, Helispots, and Airstrips

Heliports, helipads, and airstrips are not permissible. Natural openings may be utilized as helispots. No site marking or improvements

of any type will be permitted, except in conjunction with specific emergencies, after which the area will be restored. (See Aircraft Operations VII-14.)

Communications Facilities

Radio facilities are permitted where necessary for management of the wilderness area. (See Miscellaneous Management Facilities III-15.)

Fire Management

Action will be taken to control wildfires in such a way as to protect natural and cultural features and to minimize the lasting impacts of the control action and the fire itself. (See Fire Management IV-13.)

Fire Lookouts

Fire lookouts for wilderness protection are permitted where there is no adequate alternative method of fire detection. (See Miscellaneous Management Facilities III-15.)

Ranger Stations, Patrol Cabins, and Storage Structures

These structures are permitted only to the minimum extent necessary for wilderness management. (See Management Facilities III-13.)

Fences and Hitching Racks

Fences and hitching racks are permitted only where essential for protection of the resource.

Chalets and Concessionaire Camps

These facilities are not permissible. (See Overnight Accommodations III-8.)

Signs and Markers

Signs and markers may be provided only where they are necessary for visitor safety, management, or resource protection. (See Signs III-16.)

Tables

Picnic tables are not permissible.

Toilets

Toilet facilities are limited to locations where there are health and sanitation problems or danger of serious resource damage, and where reducing or dispersing visitor use is not practical or realistic. (See Comfort Stations III-10, Solid Waste IV-18, Backcountry Sanitation VII-12.)

PLAQUES, MEMORIALS, AND BURIAL PLOTS

Existing commemorative features and burial plots may be retained. No future additions may be made, unless permitted by existing reservations (See Memorials II-15, Cemeteries and Burials VII-18.)

MANAGEMENT POLICY

- The minimum tools and equipment necessary will be used in management of wilderness.
- Use of motorized equipment will be used only in emergencies for the health and safety of wilderness users.
- Permanent roads are not allowed.
- Trail bridges are allowed only where the trail route would otherwise be unsafe.
- No established aircraft landing areas are allowed. Natural open areas may be used in emergencies.
- Use of radios is allowed where necessary for management.
- Control of wildfires will be allowed to protect natural and cultural features.
- Camping facilities will be the minimum necessary for health and safety of wilderness users.
- Wilderness users will be dispersed or limited as necessary for resource protection.
- Research related to specific wilderness environments will be allowed if there is no adverse effect on resources, aesthetics, values and recreational enjoyment.
- Refuse will not be dispersed of within wilderness areas but will be carried out by the wilderness user.

PRACTICE

Implementation of the National Park Service wilderness management policy has been successful both for designated wilderness areas, and those areas recommended for designation or under study which are zoned as natural areas and, pending decisions, managed as defacto wilderness.

PROBLEMS

Few difficult problems have arisen in wilderness management, largely because of the strict provisions of the Wilderness Act and specific environmental statutes related to control of air and water pollution. Use of certain areas located in close proximity to major urban centers are subject to high levels of user demand. This has necessitated limiting volume of use to assure that area deterioration does not occur. It is significant that the wilderness user segment of the recreating public has been understandingly receptive to the need to limit and where necessary redirect use in areas where demand exceeds capacity.