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MANAGING WILDERNESS — PROBLEMS, CHALLENGES, OPPORTUNITIES, AND COST

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ABSTRACT: Wilderness management requires knowledge and understanding of the philosophy of wilderness. The wilderness manager's job is to manage an area that is affected primarily by the forces of nature, with the imprint of human beings being substantially unnoticable, while the world surrounding this wondrous resource continues to change at a rapid rate. In addition, the manager must educate and make others aware of the wilderness philosophy and its resource and spiritual values which make this place so special and unique. Wilderness management is not synonymous with recreation management but includes management of all resources associated with the wilderness. Many feel that once an area is designated as Wilderness the cost of doing business and management problems decrease drastically. Actually the opposite is usually true. This paper clarifies commonly misunderstood principles of wilderness management and offers guidelines for managing wilderness.

INTRODUCTION

Managing wilderness is one of the toughest and at times most rewarding assignment in the Forest Service. With one-sixth of the National designated Forest System as wilderness. management of these areas are a substantial part of the land manager's job. The Wilderness Act mandates that wilderness be protected and managed so as to preserve its natural condition. At the same time it provides for mining, grazing, water resource development, commercial services for recreation, access to private land, existing use of aircraft and motor boats, and control of fire, insects, and disease.

Wilderness means different things to different people. If you were to visualize "wilderness," the picture in your mind will most likely be different from everyone else's. There is a real spiritual value to wilderness — a place where one feels solitude, beauty, peace and freedom of nature. At the same time there are scientific, educational and historical values. It's

a place your children's children can enjoy, just as you do.

The creation of wilderness has not been without controversy as the spiritual, scientific, and historical values are in conflict with economic interests. The real challenge within the Forest Service is to resolve these land use issues in a win-win situation. The wilderness advocates have to be able to empathize with those involved with natural resource-based industries. At the same time the economic interests need to recognize and try and understand the spiritual value of wilderness.

As the world continues to be developed, the value of wilderness will increase. Wilderness will become more unique as the contrast with surrounding land increases. The importance of wilderness as a place where gene pools are preserved, animals and fish live in natural habitats, and our heritage is preserved will become such that man cannot put a price tag on it. In some urban wilderness areas this is already true.

To think you can manage these unique areas and resources by leaving them alone is to be naive. With increasing man-caused pressures such as air pollution, global atmospheric changes, unnatural fires, and too many people utilizing wilderness--the cost of management increases greatly.

I will briefly cover the two main jobs of the wilderness manager: 1) Managing all of the wilderness resources and, 2) managing the users of the wilderness. Before that I would like to review the primary resource management functions that make up the wilderness management job.

WILDERNESS RESOURCE MANAGEMENT FUNCTIONS

Fire Management

Fire management is a very important and controversial issue for wilderness management, especially after the 1988 fire season. The Forest Service's overall objective is to allow lightning-caused fires to play their natural ecological role in wilderness. Challenges include protection of life and property and negative consequences to surrounding land or other resources outside of wilderness. For 50 years we have been suppressing wilderness fires too well, and the result has been an unnatural accumulation of fuels. How do you get rid of those accumulations and at the same time, avoid catastrophic fires such as those in 1988? Not easily answered. In the case of man-caused fires, the objective is to put it out as fast as possible, while limiting resource damage.

Fish, Wildlife, and Watershed Management

Fish and wildlife are but one aspect of the composite wilderness resource as is vegetation, water, or scenery. Wildlife can be the source of some of the more controversial and complex issues in wilderness management because of laws that pertain to wildlife in National Forests.

Complicating the situation is the fact that the state agencies are responsible for management of the species, while the Forest Service is responsible for management of the habitat. Other areas of potential conflict are hunting and fishing, preservation of certain threatened or funding endangered species, constraints. contradictory legislation, time and space factors, interdependencies, people-wildlife conflicts, and research needs. Consider, for example, the unnatural influence made on the vegetation by the exclusion of fire. This can have a dramatic effect on habitats and the make up of wildlife species and populations. Also, geographic realities dictate that migrating wildlife such as deer and elk may spend only part of their yearly cycles in wilderness.

There are actually some wildernesses that were designated as such because of their watershed and fisheries values. Like wildlife, fish management in wilderness is controversial, especially when it involves nonindigenous species. Eastern brook trout were stocked in many high lakes in the western state wildernesses prior to designation. How are they to be managed now that the area is in the wilderness system? Artificial stocking, including the use of aircraft, was a common practice prior to designation and has been allowed to continue; but not only does the aircraft invade the solitude, the stocking itself takes away from the naturalness of the affected aquatic environment.

In the Wilderness Act there is one exception that falls in the area of watershed management. It is the allowing of water resource development (authorized by the President if he determines that such use will better serve the country's interest than would its denial).

Minerals Management

In a wilderness that has a substantial number of mining claims, mineral management is often one of the greatest challenges. While trying to preserve wilderness areas in their natural condition, the wilderness manager faces substantial conflicts in allowing mineral development, which they have been mandated to do. The Wilderness Act of 1964 allowed prospecting and mining to occur until December 31, 1983. After that date there could be no new claims filed, but development of valid existing claims and leases with their accompanying rights, including access, could occur subject to reasonable control and regulation.

An example of the potential conflict situation is the Frank Church — River of No Return Wilderness, which contains over 2,000 mining claims. At the present time there are no large-scale mining operations in the wilderness, but there are several mining operations adjacent to the wilderness, indicating the potential for mineral deposits within the wilderness.

Range Management

The Wilderness Act allows for the grazing of livestock to continue where it was an established practice prior to the area being designated as wilderness. Congressional intent was further expressed in H.R. Report 96-617, which states, in part, "...if livestock grazing activities and facilities were established in an area at the time Congress determined that the area was suitable for wilderness and placed the specific area in the wilderness system, they should be allowed to continue."

In some instances, the impact of livestock grazing on the resources has been minimal because of the economics of grazing animals in remote areas does not make it attractive to the livestock grazing permittees. In situations where grazing does occur, conflicts are frequent. Livestock can adversely affect hiking trails, drinking water sources, and the general recreation experience. User conflicts can be a problem if visitors meet cattle along the trail or campsite. In such cases, the land manager will try to minimize the conflict by keeping the livestock separated from the users.

Recreation Management

Emphasis on customer service has increased in the Forest Service over the last several years and will continue to increase. Customers not only include those that visit the wilderness, but also the millions of people that will only see wilderness as they read National Geographic, enjoy pictures on the wall and think about their children and grandchildren visiting the wilderness someday.

Customers are telling us that their wilderness values include solitude, fishing in isolated lakes, hunting, horseback riding, rafting and knowing that the natural ecosystems are undisturbed. The challenge is to provide recreational opportunities while keeping the wilderness an area without permanent improvements or human habitation, an area where we are visitors and do not remain. Not only is our job to protect and preserve wilderness for our customers, but to provide education and awareness as to what wilderness is about. The increasing challenge education, increasing the environmental wilderness literacy of all people.

MANAGEMENT OF THE WILDERNESS

Managing the Resources

In the area of fire management the challenge is to restore fire to its natural levels. With the use of natural prescribed fire and planned ignitions, the objective is to reintroduce fire to the wilderness ecosystem. Managing fire is not just letting it burn, but involves a substantial amount of planning and monitoring. The decision whether or not to identify a wilderness fire as a natural prescribed fire or a wildfire is not easily made. Things that must be considered include:

- Threat to life/property
- Availability of funds and suppression resources
- Smoke management concerns
- Potential impacts on visitors, users, cooperators, communities, etc.

- Fire proximity to wilderness boundary
- Assessment of the amount of prescribed natural fire that is acceptable and manageable
- Consideration of existing and predicted weather and fuels condition
- Drought evaluation impact and/or effect
- Preliminary fire growth determination

In the case where the decision is made to suppress the fire, suppression activities must use the minimum motorized and mechanical equipment necessary and restore disturbed areas to as near natural conditions as possible.

objective of fish and management is to diminish the degradation of wilderness quality within the constraints of overriding legislation applicable to wildlife in wilderness. It involves close coordination with the state fish and game agencies and having them understand your objectives. Where possible, we keep wildlife wild, their behavior altered as little as possible by man. A major area of concern is artificial stocking. The land manager must work with the fish agencies to discourage this stocking as it compromises the naturalness of wilderness. There is also a need to manage the hunting and fishing publics, including outfitters and guides. The objective is to permit activities that are biologically sound, legal and carried out in the spirit of a wilderness experience.

In the area of minerals management, a major concern is providing reasonable access and operation of a claim while protecting resource values. The situation is much the same when there are private land owners needing access to their land within the wilderness boundary. What is "reasonable" access? When talking about a major mining operation or a citizen needing to access his or her permanent residence you are often talking about road access — definitely not in the spirit of wilderness management. The wilderness manager's role is to provide access and allow activities to occur while protecting the resource values.

In the area of range management, the land manager must work closely with the range permittee in developing the allotment plan and administering the permit. The manager must measure the need for activities normally prohibited in wilderness against Congressional intent and grant exceptions when necessary, keeping in mind that permitted activities may only include those that were practiced before the area was designated wilderness, and necessary to maintain the predesignation level of grazing, not increasing grazing capacities or permitted numbers.

Grazing by recreation pack and saddle stock can also damage the wilderness resources and must be managed just as intensely as domestic livestock grazing.

Managing the Users

There are two major objectives in managing the use of wilderness, controlling impacts of recreational use and providing alternatives to wilderness. Education plays a major role in achieving both objectives.

The Forest Service is presently using the Limits of Acceptable Change process in wilderness planning. This process identifies management concerns and overall management direction. Indicators are identified and used to determine the resource condition and then the indicators are monitored to determine the trend of the resource. This process puts emphasis on the conditions desired in the area rather than on how much use an area can tolerate.

One has to remember that man is a visitor and that wilderness is an area untrammeled by man. Regulation of visitor use is one of the most sensitive issues of wilderness management. Any actions proposed must be necessary to meet wilderness objectives and set forth in management plans developed with public participation and acceptance.

By providing alternatives to wilderness the Forest Service can delay and sometimes prevent further regulation of wilderness use. Freedom-based values are basic to the wilderness system so the main challenge is to provide forest visitors with the experience they seek without having to regulate or put constraints on their use.

The Costs

How does one quantify the value of wilderness, the cost of wilderness, or the opportunities foregone with and without wilderness designation? Those interested in preserving the natural, spiritual, scientific and historic character of wilderness will say that the wilderness resource is irreplaceable and cannot be subjected to human values. Economic interests will say that the value of opportunities foregone for development and utilization of available resources exceed the value of preservation, or that the cost of utilizing those congressional mandated available resources, while protecting the other wilderness values, make them economically unavailable. Both arguments are considered by Congress during the wilderness designation process and I will not attempt to address them here.

I will say that the cost of administering wilderness is going up as the man-caused pressures increase. The Administration and the Congress are putting more emphasis on wilderness and our annual budget for wilderness management is on an upward trend.

SUMMARY AND CONCLUSIONS

Wilderness management does not mean setting aside land and leaving it alone. If wilderness is to retain its enduring value, there has to be sufficient management of the resources and recreational use and administrative activities must be compatible with the wilderness character. Wilderness managers are some of the most dedicated people in the Forest Service who work under physically and politically challenging

conditions with shoestring budgets. As we go from emphasis on designation of wilderness to management of wilderness, the staffing and funding will improve.

What are some of the things the Forest Service is doing to deal with the problems, challenges and opportunities related to wilderness?

Training for Agency Personnel

Establishing courses that will include wilderness history and concepts, current resource management issues, wilderness recreation management, and wilderness administration. Sessions such as the National Wilderness Conference are being cosponsored.

Professional Career Ladders

There is a need to provide appropriate career ladders for wilderness managers and recognize the special skills required to be a wilderness manager. The agency's recreation and personnel staffs are currently working on this issue.

Wilderness Education

Education is the most powerful tool for increasing public awareness about wilderness policy, affecting attitude and behavior changes, and developing an outdoor ethic. This is especially true in heavily used and urban wildernesses. We are presently developing partnerships and cooperative funding bases to teach wilderness ethics and "leave no trace" practices to our various publics. Specific projects include, but are not limited to, development of wilderness education curriculum for 5th and 6th graders, tags on outdoor clothing sold, and production of video tapes showing minimum impact camping techniques. Then there's participation in conferences like this, booths at the county fairs, interagency programs, television interviews, the list goes on!

Visitor Access to Wilderness

A study of policies on access to National Forest System Lands by persons with disabilities has just been completed. Intentions are to remove as many barriers as possible without physically altering the wilderness resource.

Wilderness Inventories

How can we know we have a problem if we do not know what the condition of the landbase was before? We are presently strengthening the application of existing Information Systems to Wilderness, including Geographic Information System and all resources reporting.

Wilderness Management Planning

Wilderness Implementation Schedules are targeted to be completed by the end of 1993. As activities and staffs for effective wilderness management are identified in each schedule, more accurate funding requests should result. As funding requests increase, hopefully the budget problems will decrease.

Setting Example for Others

What better way to deal with issues and concerns than setting an example for others? Agency personnel need to make sure we are abiding by wilderness management direction. We need to make sure we pack supplies in by pack string, that trails are cleared with crosscut saws and axes, and that we periodically review the need for administrative cabins and structures.

The Forest Service invites <u>you</u> to become more involved with wilderness management. Remember, we are managing the land for the people and want you to help do the best job possible. We look forward to meeting the challenge of a wilderness revolution as we head into the 1990s.