UNITED STATES NATIONAL PARK SERVICE MANAGEMENT POLICIES AND THEIR RELATIONSHIP TO MOUNTAIN PINE BEETLE PEST MANAGEMENT PROGRAMS

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I appreciate the opportunity to represent the Director of the U.S. National Park Service and to share with you the management policies of the National Park Service (NPS), as they potentially impact mountain pine beetle management programs in the western parts of the United States and Canada. My remarks are organized into four major segments:

- An overview of NPS mission and management responsibilities.
- The ecological role of mountain pine beetle in NPS park ecosystems.
- Management alternatives and the relationship of those alternatives to NPS lands.
- Current status and future plans.

NPS MISSION AND MANAGEMENT RESPONSIBILITIES

National parks, as broadly defined by the U.S. National Park Service, are areas set aside by statute containing regions of outstanding natural beauty, characteristic of the finest scenery in different parts of the country, nature's curios, relics of historic interest, and native fauna and flora to be maintained forever, as closely as possible to the unspoiled, original state and preserved for the benefit and enjoyment of the people.

The United States manages a national park system comprised of over 320 natural, historic, recreational, and cultural parks, embracing approximately 80 million acres in 50 states, Puerto Rico, and the Virgin Islands, together with the National Capitol Park System of metropolitan Washington, D.C.

In the planning and management of the parks that comprise this system, we are guided by the unifying management principle that protection of ecological health and historic integrity is our first consideration and priority; and that these resources are conserved for the benefit and inspiration of the people through understanding, appreciation, and enjoyment of the values being preserved. Thus, park uses are limited to those activities that are dependent upon, and protective of, the natural and historic values each park was established to preserve. Furthermore, the level, frequency, and duration of permitted uses is limited, where necessary, to protect park resources from alteration or loss.

NPS planning provides for the zoning of all park areas into one, or all, of four land classifications: natural, historic, park development, and special use. Each zone, in turn, may have various subzones. Use and resource management within these zones and subzones are guided by the management policies and carried out through the planning process. Policies valid only for any particular zone or subzone are the same for any unit of the system, except where legal requirements or valid, existing rights provide exceptions.

Natural Zones

Management of parklands possessing significant natural features and values (such as are found at Glacier and North Cascades National Parks along

the Canadian border) is concerned with ecological processes and the impact of people upon those processes and resources. The concept of perpetuation of a total, natural environment or ecosystem, as compared with the protection of individual features or species, is a distinguishing aspect of the Service's management of natural lands. This policy is enhanced in Glacier National Park by its designation as an International Biosphere Reserve. Waterton Lakes National Park is also so designated.

Historic Zones

In historic zones, the maintenance of the historic scene and of the integrity of cultural resources is the primary management objective.

Park Development Zones

Park development zones are managed and maintained for intensive visitor use. It is understood that roads, walks, buildings, and other visitor and management facilities may occupy much of the area and that the natural aspect of the land may accordingly be altered. Management of the park development zone aims at maintaining a natural environment, if possible, given the uses of the zone. Such management may be accomplished through the manipulation of the natural environment, although any manipulation will be the minimum necessary to achieve the planned use.

Special Use Zones

For special use zones, legislation establishing some parks has permitted various uses (such as grazing, mining, and hunting) that are generally not allowed in the National Park System. In some parks, legislation and policies also provide considerable latitude for active management of certain resources. Even in such areas, resource management must seek to avoid unnecessary alteration of the natural scene or interference with natural processes.

Resource Utilization

As a general policy, the Service does not allow consumptive utilization of renewable or nonrenewable resources, except as otherwise provided by law.

Disposal of Trees and Other Natural Resources

For natural areas, Service policy dictates that residue resulting from natural phenomena—such as storms, fires, and native insect and disease infestations—will be recycled through the ecosystem, if feasible. However, when it poses a threat to human safety or cultural resources, it may be salvaged or disposed of, in accordance with applicable laws and approved procedures.

Management of Animal Populations

Our policies dictate that the Service perpetuate the native animal life of the parks for their essential role in the natural ecosystems. The Service defines native species as those that occur, or occurred, due to natural processes on parklands. These do not include species that have moved into those areas, directly or indirectly, as a result of human activities. Natural processes are relied upon to regulate populations of native species to the greatest extent possible.

Insect and Disease Control

Native insects and diseases, existing under natural conditions, are viewed as neither good nor bad, but rather as natural elements of the ecosystem. Accordingly, populations of native insects (such as the mountain pine beetle) and the incidence of native diseases are allowed to function unimpeded, except where control is required:

- To prevent the loss of the host, or host-dependent, species from the ecosystem.
- To prevent outbreaks of the insect or disease from spreading to forests, trees, other vegetative communities, or animal populations outside the area, where possible.
- To conserve threatened or endangered or unique plant specimens or communities.
- To conserve and protect flora and fauna in developed zones.
- For reasons of public health and safety.

The measure of control in wilderness areas is, by policy, the minimum necessary to prevent escape from the wilderness environment.

In the case of the mountain pine beetle, there has been no effective control yet developed.

Pesticide Use

Chemical pesticides of any type are used only as a last resort, when feasible alternatives are not available or acceptable. The use of all pesticides requires the approval of the Director and, in some instances, the Secretary of the Interior.

THE ECOLOGICAL ROLE OF MOUNTAIN PINE BEETLE

The phenomenon of bark beetles killing forest trees is a complex interaction of organisms responding to changes in their environment. Clearly, from a natural processes standpoint, the mountain pine beetle plays a highly important role in park ecosystems. Consequently, our general management policy for these areas is to allow the outbreak to function unimpeded.

MANAGEMENT ALTERNATIVES

National Parks Service policy does permit control efforts of insect outbreaks in select instances, including some situations where the potential exists for outbreaks to spread to adjacent neighbors outside the park. Within the past several years, much valuable information has been obtained concerning manipulation of mountain pine beetle populations through appropriate stand management. Infested and high-risk stands can be managed in several ways, depending upon land use objectives and stand composition, through removal or organized clearcuts to help eliminate stands conducive to large population buildup of the beetle.

Dr. Safranyik has noted that "experience, with direct control of mountain pine beetle epidemics by chemical sprays, salvage logging, or other techniques aimed at reducing beetle numbers, indicates that the effects of suppression work are temporary. These control techniques are primarily useful for holding stands until all potentially susceptible trees can be removed."

These management techniques are well suited for forest stands being intensively managed for harvestable timber production. The National Park Service's mission mandates management for natural system preservation. Policy directs that dead tree residue, resulting from beetle attack, be left in place to be recycled through the ecosystem. Salvage operations that would remove the residue and disrupt the ecological cycle are not compatible with National Park natural area management. Roads and equipment, required for salvage operations and water quality impacts, are incompatible on parklands and on many lands that drain onto parklands or are, by geographic location, a part of the visual park scene.

CURRENT STATUS

For infested areas within Glacier National Park, the park has: provided increased fire detection flights; removed hazard trees in developed areas; developed an evacuation plan in the event of fire; and embarked on a fire ecology study through a $50,000 "Man and the Biosphere" grant to the University of Montana. We have already completed studies of birdlife and fuel buildups in the beetle-killed forests.

PLANS FOR THE FUTURE

In the wake of the beetle epidemic, our management approach is to restore fire to its natural role to diversify stand age, thus preventing future outbreaks of large magnitude. This is ecologically equivalent to timber management, including fuel reductions.

In some cases, where appropriate to do so, this process may be advanced through prescribed burning; however, the utlimate goal is for accomplishment through a natural fire management policy.

CONCLUSION

Just as you look to the park to aid in the protection of lands you manage adjacent to the park, the park looks to its adjacent land owners to manage their land along the park boundary in such a manner as to protect park values and to aid in fulfillment of its mandate to manage for perpetuation of natural processes.

This needs to consider: the necessity, location, and design of access roads; pesticide use; soil disturbance; channel erosion; the effects on wildlife and fisheries; and the monitoring of all environmental disturbances.

We appreciate the efforts made by the British Columbia Forest Service to reduce the possibility of sediment pollution resulting from both timber harvesting operations and road construction. The cooperative approach taken in recent land-use planning adjacent to Glacier National Park and the recognition of intangible resource values have helped each of us to have a better understanding of the problems faced by the other.

Viewed as a disaster by the professional forester and as a natural occurrence by the plant ecologist, beetles are a part of all lodgepole forests and no management will exterminate them. Like grizzly bears and bald eagles, they will not respect park and forest boundaries or state, provincial, and international boundaries.

Thus, we need a cooperative approach that recognizes the differences in our management policies and that seeks solutions in consonance with our legislative mandates. We wholeheartedly support interagency and international cooperative efforts along these lines.