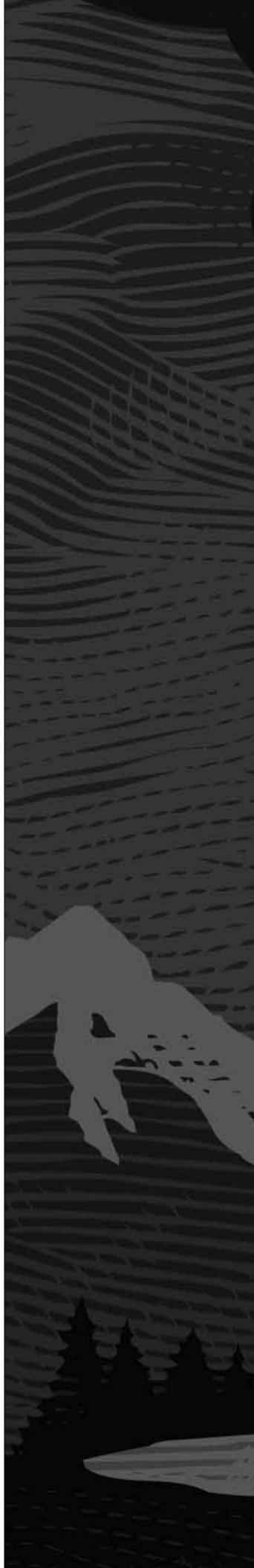
Exerpts of Natural Resources Management Policies

2006

Unrelated biological resource management text deleted from this document (see NPS Management Policies 2006 for full text)



U.S. Department of the Interior | National Park Service

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Exerpts of Natural Resources Management Policies

The Guide to Managing the National Park System

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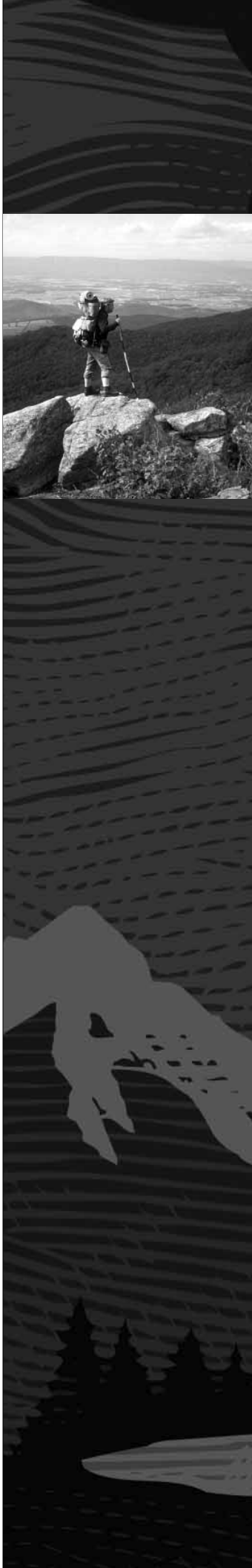
The national park system was created to conserve unimpaired many of the world's most magnificent landscapes, places that enshrine our nation's enduring principles, and places that remind us of the tremendous sacrifices Americans have made on behalf of those principles. They are the most remarkable collection of places in America for recreation and learning. Visitors can immerse themselves in places where events actually happened and enjoy some of the most significant natural and historic places in America. These are places that offer renewal for the body, the spirit and the mind. As required by the 1916 Organic Act, these special places must be managed in a special way—a way that allows them to be enjoyed not just by those who are here today, but also by generations that follow. Enjoyment by present and future generations can be assured only if these special places are passed on to them in an unimpaired condition. And that is the challenge that faces all the employees of the National Park Service. It is a challenge eagerly embraced, but employees must have the tools required to perform the job successfully. The policies contained in these pages represent one of the most important tools available. Through their judicious and consistent application, these policies will set a firm foundation for stewardship that will continue to earn the trust and confidence of the American people.



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Natural Resource Management

Natural resource studies contribute to a better understanding of park resources, and help managers make better decisions.

The National Park Service will preserve and protect the natural resources, processes, systems, and values of units of the national park system in an unimpaired condition to perpetuate their inherent integrity and to provide present and future generations with the opportunity to enjoy them.

Unrelated biological resource management text deleted from this document (see NPS Management Policies 2006 for full text)

The National Park Service will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them. The Service recognizes that natural processes and species are evolving, and the Service will allow this evolution to continue—minimally influenced by human actions. The natural resources, processes, systems, and values that the Service preserves are described generally in the 1916 NPS Organic Act and in the enabling legislation or presidential proclamation establishing each park. They are described in greater detail in management plans specific to each park. Natural resources, processes, systems, and values found in parks include

- physical resources such as water, air, soils, topographic features, geologic features, paleontological resources, and natural soundscapes and clear skies, both during the day and at night
- physical processes such as weather, erosion, cave formation, and wildland fire
- biological resources such as native plants, animals, and communities
- biological processes such as photosynthesis, succession, and evolution
- ecosystems
- highly valued associated characteristics such as scenic views

In this chapter, natural resources, processes, systems, and values are all included in the term "natural resources." The term "natural condition" is used here to describe the condition of resources that would occur in the absence of human dominance over the landscape.

The Service manages the natural resources of parks to maintain them in an unimpaired condition for present and future generations in accordance with NPS-specific statutes, including the NPS Organic Act and the National Parks Omnibus Management Act of 1998; general environmental laws such as the Clean Air Act, the Clean Water Act, the Endangered Species Act of 1973, the National Environmental Policy Act, and the Wilderness Act; executive orders; and applicable regulations.

Activities that take place outside park boundaries and that are not managed by the Service can profoundly affect the Service's ability to protect natural resources inside the parks. The Service will act to protect natural resources from impacts caused by external activities by working cooperatively with federal, state, and local agencies; tribal authorities; user groups; adjacent landowners; and others to identify and achieve broad natural resource goals. By working cooperatively through both formal and informal lines of communication and consultation, the Service will better achieve park management objectives and the protection of parks' natural resources.

(See Park Management 1.4; Cooperative Conservation Beyond Park Boundaries 1.6; Partnerships 4.1.4)

4.1 General Management Concepts

As explained in chapter 1 of these *Management Policies*, preserving park resources and values unimpaired is the core or primary responsibility of NPS managers. The Service cannot conduct or allow activities in parks that would impact park resources and values to a level that would constitute impairment. To comply with this mandate, park managers must determine in writing whether proposed activities in parks would impair natural resources. Park managers must also take action to ensure that ongoing NPS activities do not cause the impairment of park natural resources. In cases of uncertainty as to the impacts of activities on park natural resources, the protection of natural resources will predominate. The Service will reduce such uncertainty by facilitating and building a science-based understanding of park resources and the nature and extent of the impacts involved.

Natural resources will be managed to preserve fundamental physical and biological processes, as well as individual species, features, and plant and animal communities. The Service will not attempt to solely preserve individual species (except threatened or endangered species) or individual natural processes; rather, it will try to maintain all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity, and genetic and ecological integrity of the plant and animal species native to those ecosystems. Just as all components of a natural system will be recognized as important, natural change will also be recognized as an integral part of the functioning of natural systems. By preserving these components and processes in their natural condition, the Service will prevent resource degradation and therefore avoid any subsequent need for resource restoration. In managing parks to preserve naturally evolving ecosystems, and in accordance with requirements of the National Parks Omnibus Management Act of 1998, the Service will use the findings of science and the analyses of scientifically trained resource specialists in decision-making.

Park units with significant natural resources range in size from just a few acres to millions of acres and from urban to remote and wilderness settings. As integral parts of a national park system, these park units individually and cumulatively contribute to America's natural heritage and provide the places where that heritage can be better understood and enjoyed.

Science has demonstrated that few if any park units can fully realize or maintain their physical and biological integrity if managed as biogeographic islands. Instead, park units must be managed in the context of their larger ecosystems. The ecosystem context for some species and processes may be relatively small, while for others this context is vast. In any case, superintendents face the challenge of placing each of the resources they protect in their appropriate ecosystem

context and then working with all involved and affected parties to advance their shared conservation goals and avoid adverse impacts on these resources.

Superintendents must be mindful of the setting in which they undertake the protection of park resources. The practicability of achieving a natural soundscape may be quite reasonable at a park unit in a remote setting, but the same may not be true at a popular roadside viewpoint in the same park unit, or at a park unit in a more urban locale. Similarly, the restoration and maintenance of natural fire regimes can advance more rapidly and on a larger landscape scale in wilderness areas where considerations for public safety and the protection of private property and physical developments can usually be readily addressed. However, the restoration and maintenance of natural fire regimes in more developed and highly visited locations with the same considerations can be extremely complicated. The goal of protecting natural resources and values while providing for their enjoyment remains the same in all cases except to the extent that Congress has directly and specifically provided otherwise. The degree to which a park can adequately restore and maintain its natural resources to a desired condition will depend on a variety of factors—such as size, past management events, surrounding land uses, and the availability of resources. Through its planning processes, the Park Service will determine the desired future conditions for each park unit and identify a strategy to achieve them. This strategy should include working cooperatively with adjacent land and resource managers, as appropriate.

The Service will not intervene in natural biological or physical processes, except

- when directed by Congress;
- in emergencies in which human life and property are at stake;
- to restore natural ecosystem functioning that has been disrupted by past or ongoing human activities; or
- when a park plan has identified the intervention as necessary to protect other park resources, human health and safety, or facilities.

Any such intervention will be kept to the minimum necessary to achieve the stated management objectives.

Natural systems in the national park system, and the human influences upon them, will be monitored to detect change. The Service will evaluate possible causes and effects of changes that might cause impacts on park resources and values. The Service will use the results of monitoring and research to understand the detected change and to develop appropriate management actions.

Biological or physical processes altered in the past by human activities may need to be actively managed to restore them to a natural condition or to maintain the closest approximation of the natural condition when a truly natural system is no longer attainable. Prescribed burning and the control of ungulates when predators have been extirpated are two examples. Decisions about the extent and degree of management actions taken to protect or restore park ecosystems or their components will be based on clearly articulated, well-supported management objectives and the best scientific information available.

There may be situations in which an area may be closed to visitor use to protect the natural resources (for example, during an animal breeding season) or for reasons of public safety (for example, during a wildland fire). Such closures may be accomplished under the superintendent's discretionary authority and will comply with applicable regulations (36 CFR 1.5 and 1.7).

(See The Prohibition on Impairment of Park Resources and Values 1.4.4; Environmental Leadership 1.8; General Management Planning 2.3.1; Facility Planning and Design 9.1.1. Also see Director's Order #11B: Ensuring Quality of Information Disseminated by the NPS; Director's Order #75A: Civic Engagement and Public Involvement)

4.1.1 Planning for Natural Resource Management

Each park with a significant natural resource base (as exemplified by participation in the Vital Signs component of the Natural Resource Challenge) will prepare and periodically update a long-range (looking at least one to two decades ahead) comprehensive strategy for natural resource management. This long-range strategy will describe the comprehensive program of activities needed to achieve the desired future conditions for the park's natural resources. It will integrate the best available science and prescribe activities such as inventories, research, monitoring, restoration, mitigation, protection, education, and management of resource uses. The strategy will also describe the natural-resource-related activities needed to achieve desired future conditions for cultural resources (such as historic landscapes) and visitor enjoyment.

Similarly, planning for park operations, development, and management activities that might affect natural resources will be guided by high-quality, scientifically acceptable information, data, and impact assessment. Where existing information is inadequate, the collection of new information and data may be required before decision-making. Long-term research or monitoring may also be necessary to correctly understand the effects of management actions on natural resources whose function and significance are not clearly understood.

(See Decision-making Requirements to Identify and Avoid Impairments 1.4.7; General Management Planning 2.3.1; Land Protection Plans 3.3; NPS-conducted or -sponsored Inventory, Monitoring, and Research Studies 4.2.1; Cultural Landscapes 5.3.5.2; Chapter 8: Use of the Parks; Chapter 9: Park Facilities. Also see 516 DM 4.16—Adaptive Management)

4.1.2 Natural Resource Information

Information about natural resources that is collected and developed will be maintained for as long as it is possible to do so. All forms of information collected through inventorying, monitoring, research, assessment, traditional knowledge, and management actions will be managed to professional NPS archival and library standards.

Most information about park natural resources will be made broadly available to park employees, the scientific community, and the public. Pursuant to provisions of the National Parks Omnibus Management Act, the Service will withhold information about the nature and specific location of sensitive park natural resources—specifically caves and mineral, paleontological, endangered, threatened, rare, or commercially valuable resources— unless the Service determines, in writing, that disclosure of the information would further the purposes of the park; would not create an unreasonable risk of harm, theft, or destruction of resources; and would be consistent with other applicable laws.

Under the Freedom of Information Act, the Park Service may be able to withhold sensitive natural resource data and information that is used in ongoing law enforcement investigations or subject to national security clearance classification. The Service may be able to withhold data provided through interim project reporting, pending the completion of relevant projects and the receipt of final project reports, as specified in approved scientific research and collecting permits and associated research proposals if the release of information will cause foreseeable harm to the NPS interests. Information that is made available to the public (that is, not withheld under the Freedom of Information Act or other laws) will remain searchable and accessible under the professional and NPS archival and library standards.

(See Information Confidentiality 1.9.2.3; Confidentiality 5.2.3; Interpretive and Educational Programs 7.1. Also see Director's Order #66: FOIA and Protected Resource Information; Museum Handbook 24-Part II)

4.1.3 Evaluating Impacts on Natural Resources

Planning, environmental evaluation, and civic engagement regarding management actions that may affect the natural resources of the national park system are essential for carrying out the Service's responsibilities to present and future generations. The Service will ensure that the environmental costs and benefits of proposed operations, development, and resource management are fully and openly evaluated before taking actions that may impact the natural resources of parks. This evaluation must include appropriate participation by the public; the application of scholarly, scientific, and technical information in the planning, evaluation, and decision-making processes; the use of NPS knowledge and expertise through interdisciplinary teams and processes; and the full incorporation of mitigation measures, pollution prevention techniques, and other principles of sustainable park management.

Every environmental assessment and environmental impact statement produced by the Service will include an analysis of whether the impacts of a proposed activity constitute impairment of park natural resources and values. Every finding of no significant impact, record of decision, and National Historic Preservation Act Section 106 memorandum of agreement signed by the Park Service will contain a discrete certification that the impacts of the proposed activity will not impair park natural resources and values.

(See Park Management 1.4; Implementation Planning 2.3.4; NPS-conducted or -sponsored Inventory, Monitoring, and Research Studies 4.2.1. Also see Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making)

4.1.4 Partnerships

The Service will pursue opportunities to improve natural resource management within parks and across administrative boundaries by pursuing cooperative conservation with public agencies, appropriate representatives of American Indian tribes and other traditionally associated peoples, and private landowners in accordance with Executive Order 13352 (Facilitation of Cooperative Conservation). The Service recognizes that cooperation with other land and resource managers can accomplish ecosystem stability and other resource management objectives when the best efforts of a single manager might fail. Therefore, the Service will develop agreements with federal, tribal, state, and local governments and organizations; foreign governments and organizations; and private landowners, when appropriate, to coordinate plant, animal, water, and other natural resource management activities in ways that maintain and protect park resources and values. Such cooperation may include park restoration activities, research on park natural resources, and the management of species harvested in parks. Cooperation also may involve coordinating management activities in two or more separate areas, integrating management practices to reduce conflicts, coordinating research, sharing data and expertise, exchanging native biological resources for species management or ecosystem restoration purposes, establishing native wildlife corridors, and providing essential habitats adjacent to or across park boundaries.

In addition, the Service will seek the cooperation of others in minimizing the impacts of influences originating outside parks by controlling noise and artificial lighting, maintaining water quality and quantity, eliminating toxic substances, preserving scenic views, improving air quality, preserving wetlands, protecting threatened or endangered species, eliminating exotic species, managing the use of pesticides, protecting shoreline processes, managing fires, managing boundary influences, and using other means of preserving and protecting natural resources.

(See Cooperative Conservation Beyond Park Boundaries 1.6; Partnerships 1.10; Cooperative Conservation 3.4; Agreements 5.2.2)

Unrelated text deleted (see NPS Management Policies 2006)

4.4 Biological Resource Management

4.4.1 General Principles for Managing Biological Resources

The National Park Service will maintain as parts of the natural ecosystems of parks all plants and animals native to park ecosystems. The term "plants and animals" refers to all five of the commonly recognized kingdoms of living things and includes such groups as flowering plants, ferns, mosses, lichens, algae, fungi, bacteria, mammals, birds, reptiles, amphibians, fishes, insects, worms, crustaceans, and microscopic plants or animals. The Service will successfully maintain native plants and animals by

- preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations and the communities and ecosystems in which they occur;
- restoring native plant and animal populations in parks when they have been extirpated by past human-caused actions; and
- minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them.

4.4.1.1 Plant and Animal Population Management Principles

The individual plants and animals found in parks are genetically parts of species populations that may extend across both park and nonpark lands. As local populations within a group of populations naturally fluctuate in size, they become vulnerable to extirpation during periods when their numbers are low. The periodic disappearance of local populations is common in some species, and the regional persistence of these species depends upon the natural recolonization of suitable habitat by individuals from the remaining local populations. Thus, providing for the persistence of a species in a park may require maintaining a number of local populations, often both within and outside the park.

In addition, some populations of vertebrate and invertebrate animals, such as bats, caribou, warblers, marine turtles, frogs, salmon, whales, and butterflies, migrate at regular intervals into and out of parks. For these migratory populations, the parks provide only one of the several major habitats they need, and survival of the species in parks also depends on the existence and quality of habitats outside the parks, including in many cases outside the United States. The Service will adopt park resource preservation, development, and use management strategies that are intended to maintain the natural population fluctuations and processes that influence the dynamics of individual plant and animal populations, groups of plant and animal populations, and migratory animal populations in parks.

In addition to maintaining all native plant and animal species and their habitats inside parks, the Service will work with other land managers to encourage the conservation of the populations and habitats of these species outside parks whenever possible. To meet its commitments for maintaining native species in parks, the Service will cooperate with states, tribal governments, the U.S. Fish and Wildlife Service, NOAA Fisheries, and other countries, as appropriate, to

- participate in local and regional scientific and planning efforts, identify ranges of populations of native plants and animals, and develop cooperative strategies for maintaining or restoring these populations in the parks;
- suggest mutually beneficial harvest regulations for lands and waters outside the parks for populations that extend across park boundaries, such as resident deer or fishes; for short-distance seasonal migrant populations, such as elk or fishes; or for long-distance migrant populations, such as salmon;
- develop data, through monitoring, for use in plant and animal management programs (such as local land management decision-making for assessing resident plant and animal population trends and in international management negotiations for such far-ranging seasonal migrants as geese, whales, and marine turtles);
- present information about species life cycles, ranges, and population dynamics in park interpretive programs for use in increasing public awareness of management needs for all species, both resident and migrant, that occur in parks; and
- prevent the introduction of exotic species into units of the national park system, and remove, when possible, or otherwise contain individuals or populations of these species that have already become established in parks.

(See Civic Engagement 1.7; Cooperative Conservation Beyond Park Boundaries 1.6)

4.4.1.2 Genetic Resource Management Principles

The Service will strive to protect the full range of genetic types (genotypes) of native plant and animal populations in the parks by perpetuating natural evolutionary processes and minimizing human interference with evolving genetic diversity.

The restoration of native plants and animals will be accomplished using organisms taken from populations as closely related genetically and ecologically as possible to park populations, preferably from similar habitats in adjacent or local areas. Deviations from this general policy may be made where the management goal is to increase the variability of the park gene pool to mitigate past, human-induced loss of genetic variability. Actions to transplant organisms for purposes of restoring genetic variability through gene flow between native breeding populations will be preceded by an assessment of the genetic compatibility of the populations.

The need to maintain appropriate levels of genetic diversity will guide decisions on what actions to take to manage isolated populations of species or to enhance the recovery of populations of rare, threatened, or endangered species. All resource management actions involving planting or relocating species, subspecies, or varieties will be guided by detailed knowledge of site ecological histories and knowledge of local adaptations, ranges, and habitat requirements.

When native plants or animals are removed for any reason—such as hunting, fishing, pest management, or culling to reduce unnatural population conditions resulting from human activities—the Service will maintain the appropriate levels of natural genetic diversity.

(See Restoration of Natural Systems 4.1.5; Restoration of Native Plant and Animal Species 4.4.2.2)

4.4.1.3 Definition of Native and Exotic Species

Native species are defined as all species that have occurred, now occur, or may occur as a result of natural processes on lands designated as units of the national park system. Native species in a place are evolving in concert with each other. Exotic species are those species that occupy or could occupy park lands directly or indirectly as the result of deliberate or accidental human activities. Exotic species are also commonly referred to as nonnative, alien, or invasive species. Because an exotic species did not evolve in concert with the species native to the place, the exotic species is not

a natural component of the natural ecosystem at that place. Genetically modified organisms exist solely due to human activities and therefore are managed as exotic species in parks.

4.4.2 Management of Native Plants and Animals

Whenever possible, natural processes will be relied upon to maintain native plant and animal species and influence natural fluctuations in populations of these species. The Service may intervene to manage individuals or populations of native species only when such intervention will not cause unacceptable impacts to the populations of the species or to other components and processes of the ecosystems that support them. The second is that at least one of the following conditions exists:

- Management is necessary
  - ◇ because a population occurs in an unnaturally high or low concentration as a result of human influences (such as loss of seasonal habitat, the extirpation of predators, the creation of highly productive habitat through agriculture or urban landscapes) and it is not possible to mitigate the effects of the human influences;
  - ◇ to protect specific cultural resources of parks;
  - ◇ to accommodate intensive development in portions of parks appropriate for and dedicated to such development;
  - ◇ to protect rare, threatened, or endangered species;
  - ◇ to protect human health as advised by the U.S. Public Health Service (which includes the Centers for Disease Control and the NPS public health program);
  - ◇ to protect property when it is not possible to change the pattern of human activities; or
  - ◇ to maintain human safety when it is not possible to change the pattern of human activities.

Or,

- Removal of individuals or parts thereof
  - ◇ is part of an NPS research project described in an approved management plan, or is part of research being conducted by others who have been issued a scientific research and collecting permit;
  - ◇ is done to provide plants or animals for restoring native populations in parks or cooperating areas without diminishing the viability of the park populations from which the individuals are taken; or
  - ◇ meets specific park management objectives.

In planning and implementing plant and animal population management actions, the Service will follow established planning procedures, including provisions for public review and comment. The Service will consult, as appropriate, with other federal land-management agencies, the U.S. Fish and Wildlife Service, the NOAA Fisheries, state wildlife management agencies, other appropriate state agencies, tribal governments, and others. Such consultation will address (1) the management of selected animal populations, (2) research involving the taking of animal species of interest to these agencies, and (3) cooperative studies and plans dealing with the public hunting and fishing of animal populations that occur across park boundaries.

The Service's cooperative conservation efforts concerning fish and wildlife management will be consistent with departmental policy articulated at 43 CFR Part 24. This departmental policy recognizes the broad authorities and responsibilities of federal and state agencies with regard to the management of the nation's fish and wildlife resources; this policy also promotes cooperative management relationships among these agencies. In particular, the policy calls on the Service to consult with state agencies on certain fish and wildlife management actions and encourages the execution of memoranda of understanding as appropriate to ensure the conduct of programs that meet mutual objectives as long as they do not conflict with federal law or regulation.

The Service will assess the results of managing plant and animal populations by conducting follow-up monitoring or other studies to determine the impacts of the management methods on nontargeted and targeted components of the ecosystem.

4.4.2.1 NPS Actions That Remove Native Plants and Animals

Whenever the Service removes native plants or animals, manages plant or animal populations to reduce their sizes, or allows others to remove plants or animals for an authorized purpose, the Service will seek to ensure that such removals will not cause unacceptable impacts on native resources, natural processes, or other park resources. Whenever the Service identifies a possible need for reducing the size of a park plant or animal population, the Service will use scientifically valid resource information obtained through consultation with technical experts, literature review, inventory, monitoring, or research to evaluate the identified need for population management; the Service will document it in the appropriate park management plan.

In addition, the Service will manage such removals to prevent them from interfering broadly with

- natural habitats, natural abundances, and natural distributions of native species and natural processes
- rare, threatened, and endangered plant or animal species or their critical habitats
- scientific study, interpretation, environmental education, appreciation of wildlife, or other public benefits
- opportunities to restore depressed populations of native species
- breeding or spawning grounds of native species

Where the need to reduce animal populations may be due to persistent human/animal conflicts, the Service will determine whether or not it can eliminate or mitigate the

conflicts by modifying or curtailing the conflicting visitor use or other human activities. Where visitor use or other human activities cannot be modified or curtailed, the Service may directly reduce the animal population by using several animal population management techniques, either separately or together. These techniques include relocation, public hunting on lands outside a park or where legislatively authorized within a park, habitat management, predator restoration, reproductive

intervention, and destruction of animals by NPS personnel or their authorized agents. Where animal populations are reduced, destroyed animals may be left in natural areas of the park to decompose unless there are human safety concerns regarding attraction of potentially harmful scavengers to populated sites or trails or other human health and sanitary concerns associated with decomposition. Live animals or carcasses may be removed from parks according to the provisions of applicable laws, agreements, and regulations, including the granting of preference to Native Americans.

(See Pest Management 4.4.5. Also see Director's Order #18: Wildland Fire Management)

4.4.2.2 Restoration of Native Plant and Animal Species

The Service will strive to restore extirpated native plant and animal species to parks whenever all of the following criteria are met:

- Adequate habitat to support the species either exists or can reasonably be restored in the park and if necessary also on adjacent public lands and waters; once a natural population level is achieved, the population can be self-perpetuating.
- The species does not, based on an effective management plan, pose a serious threat to the safety of people in parks, park resources, or persons or property within or outside park boundaries.
- The genetic type used in restoration most nearly approximates the extirpated genetic type.
- The species disappeared or was substantially diminished as a direct or indirect result of human-induced change to the species population or to the ecosystem.
- Potential impacts upon park management and use have been carefully considered.

Programs to restore animal species may include confining animals in small field enclosures during restoration efforts, but only until the animals have become accustomed to the new area or they have become sufficiently established to minimize threats from predators, poaching, disease, or other factors. Programs to restore animal species may also include confining animals in cages for captive breeding to increase the number of offspring for release to the wild or to manage the population's gene pool. Programs to restore plant species may include propagating plants in greenhouses, gardens, or other confined areas to develop propagation materials (propagules) for restoration efforts or to manage a population's gene pool.

(See Restoration of Natural Systems 4.1.5)

4.4.2.3 Management of Threatened or Endangered Plants and Animals

The Service will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The Service will fully meet its obligations under the NPS Organic Act and the Endangered Species Act to both proactively conserve listed species and prevent detrimental effects on these species. To meet these obligations, the Service will

- cooperate with both the U.S. Fish and Wildlife Service and the NOAA Fisheries to ensure that NPS actions comply with both the written requirements and the spirit of the Endangered Species Act. This cooperation should include the full range of activities associated with the Endangered Species Act, including consultation, conferencing, informal discussions, and securing all necessary scientific and/or recovery permits;
- undertake active management programs to inventory, monitor, restore, and maintain listed species' habitats; control detrimental nonnative species; manage detrimental visitor access; and reestablish extirpated populations as necessary to maintain the species and the habitats upon which they depend;
- manage designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for the recovery of threatened and endangered species;
- cooperate with other agencies to ensure that the delineation of critical habitat, essential habitat, and/or recovery areas on park-managed lands provides needed conservation benefits to the total recovery efforts being conducted by all the participating agencies;
- participate in the recovery planning process, including the provision of members on recovery teams and recovery implementation teams where appropriate;
- cooperate with other agencies, states, and private entities to promote candidate conservation agreements aimed at precluding the need to list species; and
- conduct actions and allocate funding to address endangered, threatened, proposed, and candidate species.

The National Park Service will inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible. In addition, the Service will inventory other native species that are of special management concern to parks (such as rare, declining, sensitive, or unique species and their habitats) and will manage them to maintain their natural distribution and abundance.

The Service will determine all management actions for the protection and perpetuation of federally, state, or locally

listed species through the park management planning process, and will include consultation with lead federal and state agencies as appropriate.

(See Cooperative Conservation Beyond Park Boundaries 1.6; Partnerships 1.10 and 4.1.4; Cooperative Planning 2.3.1.8; Visitor Use 8.2)

4.4.2.4 Management of Natural Landscapes

Natural landscapes disturbed by natural phenomena, such as landslides, earthquakes, floods, hurricanes, tornadoes, and fires, will be allowed to recover naturally unless manipulation is necessary to (1) mitigate for excessive disturbance caused by past human effects, (2) preserve cultural and historic resources as appropriate based on park planning documents, or (3) protect park developments or the safety of people. Landscape and vegetation conditions altered by human activity may be manipulated where the park management plan provides for restoring the lands to a natural condition. Management activities to restore human-altered landscapes may include, but are not restricted to

- removing constructed features, restoring natural topographic gradients, and revegetating with native park species on acquired inholdings and on sites from which previous development is being removed;
- restoring natural processes and conditions to areas disturbed by human activities such as fire suppression;
- rehabilitating areas disturbed by visitor use or by the removal of hazard trees; and
- maintaining open areas and meadows in situations in which they were formerly maintained by natural processes that now are altered by human activities.

Landscape revegetation efforts will use seeds, cuttings, or transplants representing species and gene pools native to the ecological portion of the park in which the restoration project is occurring. Where a natural area has become so degraded that restoration with gene pools native to the park has proven unsuccessful, improved varieties or closely related native species may be used.

Landscape restoration efforts will use geological materials and soils obtained in accordance with geological and soil resource *Management Policies*. Landscape restoration efforts may use, on a temporary basis, appropriate soil fertilizers or other soil amendments so long as that use does not unacceptably alter the physical, chemical, or biological characteristics of the soil and biological community and does not degrade surface or groundwaters.

(See Restoration of Natural Systems 4.1.5; Cultural Landscapes 5.3.5.2)

4.4.2.5 Maintenance of Altered Plant Communities

In altered plant communities managed for a specified purpose, plantings will consist of species that are native to the park or that are historically appropriate for the period or event commemorated. Communities altered to maintain habitat for threatened or endangered species may only use native plants, and the manipulation of existing plants will be carried out to enhance the recovery of the threatened or endangered species or the recovery of the natural functioning of the plant and animal community that endangered species are a part of. Use of exotic plants must conform to exotic species policy. Use of nonnatural plantings in altered communities may be permitted under any of the following conditions:

- In localized, specific areas, screen plantings may be used to protect against the undesirable impacts of adjacent land uses provided that the plantings do not result in the invasion of exotic species.
- Where necessary to preserve and protect the desired condition of specific cultural resources and landscapes, plants and plant communities generally will be managed to reflect the character of the landscape that prevailed during the historic period. Efforts may be made to extend the lives of specimen trees dating from the historic period being commemorated. An individual tree or shrub known to be of historic value that is diseased beyond recovery and has become hazardous will be removed and may be replaced. While specimen trees or shrubs that need to be perpetuated are still healthy, their own progeny will be propagated from seeds or through vegetative reproduction, such as cuttings.
- Where cultivated crop plants may be needed for livestock or agricultural uses that are allowed as part of the cultural landscape, authorized by federal law, or retained as a property right, with rigorous review given to any proposal to introduce a genetically modified organism.
- Where needed for intensive development areas. Such plantings will use noninvasive native or nonnative historic species and materials to the maximum extent possible. Certain native species may be fostered for esthetic, interpretive, or educational purposes.

Exotic species may not be used to vegetate vista clearings in otherwise natural vegetation.

Limited, recurring use of soil fertilizers or other soil amendments may be allowed only as needed to maintain the desired condition of the altered plant community, and only where such use does not unacceptably alter the physical, chemical, or biological characteristics of the soil and biological community or degrade surface or groundwaters.

(See Management of Exotic Species 4.4.4; Cultural Landscapes 5.3.5.2)

4.4.3 Harvest of Plants and Animals by the Public

Public harvesting of designated species of plants and animals, or their components, may be allowed in park units when

- hunting, trapping, subsistence use, or other harvesting is specifically authorized by statute or regulation and not subsequently prohibited by regulation;

- harvest of certain plant parts or unoccupied seashells for personal consumption or use is specifically authorized by the superintendent in accordance with 36 CFR 2.1(c)(1);
- recreational fishing is not specifically prohibited; or
- commercial fishing is specifically authorized by statute or regulation.

Where harvesting is allowed and subject to NPS control, the Service will allow harvesting only when (1) the monitoring requirement contained in section 4.4.2 and the criteria in section 4.4.2.1 above have been met, and (2) the Service has determined that the harvesting will not unacceptably impact park resources or natural processes, including the natural distributions, densities, age-class distributions, and behavior of

- harvested species
- native species that the harvested species use for any purpose, or
- native species that use the harvested species for any purpose

In consultation and cooperation, as appropriate, with individual state or tribal governments, the Service will manage harvesting programs and any associated habitat management programs intended to restore and maintain habitats supporting harvested plant or animal populations to conform with applicable federal and state regulations.

Habitat manipulation for harvested species may include the restoration of a disturbed area to its natural condition so it can become self-perpetuating, but this will not include the artificial manipulation of habitat to increase the numbers of a harvested species above its natural range in population levels.

The Service may encourage the intensive harvesting of exotic species in certain situations when needed to meet park management objectives.

The Service does not engage in activities to reduce the numbers of native species for the purpose of increasing the numbers of harvested species (i.e., predator control), nor does the Service permit others to do so on lands managed by the National Park Service.

The Service manages harvest to allow for self-sustaining populations of harvested species and does not engage in the stocking of plants or animals to increase harvest. In some special situations, the Service may stock native or exotic animals for recreational harvesting purposes, but only when such stocking will not unacceptably impact park natural resources or processes and when

- the stocking is of fish into constructed large reservoirs or other significantly altered large water bodies and the purpose is to provide for recreational fishing; or
- the intent for stocking is a treaty right or expressed in statute, other applicable law, or a House or Senate report accompanying a statute.

The Service will not stock waters that are naturally barren of harvested aquatic species.

4.4.4 Management of Exotic Species

Exotic species will not be allowed to displace native species if displacement can be prevented.

4.4.4.1 Introduction or Maintenance of Exotic Species

In general, new exotic species will not be introduced into parks. In rare situations, an exotic species may be introduced or maintained to meet specific, identified management needs when all feasible and prudent measures to minimize the risk of harm have been taken and it is

- a closely related race, subspecies, or hybrid of an extirpated native species; or
- an improved variety of a native species in situations in which the natural variety cannot survive current, human-altered environmental conditions; or
- used to control another, already established exotic species; or
- needed to meet the desired condition of a historic resource, but only where it is noninvasive and is prevented from being invasive by such means as cultivating (for plants), or tethering, herding, or pasturing (for animals). In such cases, the exotic species used must be known to be historically significant, to have existed in the park during the park's period of historical significance, to be a contributing element to a cultural landscape, or to have been commonly used in the local area at that time; or
- an agricultural crop used to maintain the character of a cultural landscape, with rigorous review given to any proposal to introduce a genetically modified organism; or
- necessary to provide for intensive visitor use in developed areas and both of the following conditions exist:
  - ◇ Available native species will not meet park management objectives.
  - ◇ The exotic species is managed so it will not spread or become a pest on park or adjacent lands.
- a sterile, noninvasive plant that is used temporarily for erosion control; or
- directed by law or expressed legislative intent.

Domestic livestock such as cattle, sheep, goats, horses, mules, burros, reindeer, and llamas are exotic species that are maintained in some parks for commercial herding, pasturing, grazing, or trailing; for recreational use; or for administrative use for maintaining the cultural scene or supporting park operations. The policies applicable to the grazing of commercial domestic livestock are discussed in chapter 8, section 8.6.8. The Service will phase out the commercial grazing of livestock whenever possible and manage recreational and administrative uses of livestock to prevent those uses from unacceptably impacting park resources.