

4.6 Water Resource Management

4.6.1 Protection of Surface Waters and Groundwaters

The Service will perpetuate surface waters and groundwaters as integral components of park aquatic and terrestrial ecosystems.

4.6.2 Water Rights

Water for the preservation and management of the national park system will be obtained and used in accordance with legal authorities. The Park Service will consider all available authorities on a case-by-case basis and will pursue those that are the most appropriate to protect water-related resources in parks. While preserving its legal remedies, the Service will work with state water administrators to protect park resources and participate in negotiations to seek the resolution of conflicts among multiple water claimants. Water essential for NPS needs will be purchased if it is not otherwise available. NPS consumptive use of water will be efficient and frugal, especially in water-scarce areas.

All rights to the use of water diverted from or used on federal lands within the national park system by the United States or its concessioners, lessors, or permittees will be perfected in the name of the United States.

Park surface waters or groundwater will be withdrawn for consumptive use only when such withdrawal is absolutely necessary for the use and management of the park. All park water withdrawn for domestic or administrative uses will be returned to the park watershed system once it has been treated to a degree that ensures that there will be no impairment of park resources.

The Service may enter into contracts for the sale or lease of water to persons, states, or their political subdivisions that provide public accommodations or services for park visitors outside and near the park that have no reasonable alternative sources of water. The Service will authorize such contracts only if

- ◆ the transfer does not jeopardize or unduly interfere with the natural or cultural resources of the park, and
- ◆ the government's costs are fully recovered, and
- ◆ the contract is for a short term, true emergency.

The Service will follow the requirements and procedures of Director's Orders #35A and #35B when considering the sale or lease of park water.

(See Decision-making Requirements to Identify and Avoid Impairments 1.4.7; Cooperative Conservation Beyond Park Boundaries 1.6)

4.6.3 Water Quality

The pollution of surface waters and groundwaters by both point and nonpoint sources can impair the natural functioning of aquatic and terrestrial ecosystems and diminish the utility of park waters for visitor use and enjoyment. The Service will determine the quality of park surface and groundwater resources and avoid, whenever possible, the pollution of park waters by human activities occurring within and outside the parks. The Service will

- ◆ work with appropriate governmental bodies to obtain the highest possible standards available under the Clean Water Act for the protection for park waters;
- ◆ take all necessary actions to maintain or restore the quality of surface waters and groundwaters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations; and
- ◆ enter into agreements with other agencies and governing bodies, as appropriate, to secure their cooperation in maintaining or restoring the quality of park water resources.

(See Pest Management 4.4.5; Soil Resource Management 4.8.2.4; Backcountry Use 8.2.2.4; Domestic and Feral Livestock 8.6.8; Mineral Exploration and Development 8.7; Water Supply Systems 9.1.5.1; Wastewater Treatment Systems 9.1.5.2; Waste Management and Contaminant Issues 9.1.6; Facilities for Water Recreation 9.3.4.2. Also see Director's Order #83: Public Health)

4.6.4 Floodplains

In managing floodplains on park lands, the National Park Service will (1) manage for the preservation of floodplain values; (2) minimize potentially hazardous conditions associated with flooding; and (3) comply with the NPS Organic Act and all other federal laws and executive orders related to the management of activities in flood-prone areas, including Executive Order 11988 (Floodplain Management), the National Environmental Policy Act, applicable provisions of the Clean Water Act, and the Rivers and Harbors Appropriation Act of 1899. Specifically, the Service will

- ◆ protect, preserve, and restore the natural resources and functions of floodplains;
- ◆ avoid the long- and short-term environmental effects associated with the occupancy and modification of floodplains; and
- ◆ avoid direct and indirect support of floodplain development and actions that could adversely

affect the natural resources and functions of floodplains or increase flood risks.

When it is not practicable to locate or relocate development or inappropriate human activities to a site outside and not affecting the floodplain, the Service will

- ◆ prepare and approve a statement of findings, in accordance with procedures described in Director's Order 77-2 (Floodplain Management);
- ◆ use nonstructural measures as much as practicable to reduce hazards to human life and property while minimizing the impact to the natural resources of floodplains;
- ◆ ensure that structures and facilities are designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR Part 60).

(See Siting Facilities to Avoid Natural Hazards 9.1.1.5)

4.6.5 Wetlands

The Service will manage wetlands in compliance with NPS mandates and the requirements of Executive Order 11990 (Protection of Wetlands), the Clean Water Act, the Rivers and Harbors Appropriation Act of 1899, and the procedures described in Director's Order 77-1 (Wetland Protection). The Service will (1) provide leadership and take action to prevent the destruction, loss, or degradation of wetlands; (2) preserve and enhance the natural and beneficial values of wetlands; and (3) avoid direct and indirect support of new construction in wetlands unless there are no practicable alternatives and the proposed action includes all practicable measures to minimize harm to wetlands.

The Service will implement a "no net loss of wetlands" policy. In addition, the Service will strive to achieve a longer-term goal of net gain of wetlands across the national park system through restoration of previously degraded or destroyed wetlands.

When natural wetland characteristics or functions have been degraded or lost due to previous or ongoing human actions, the Service will, to the extent practicable, restore them to predisturbance conditions.

The Service will conduct or obtain parkwide wetland inventories to help ensure proper planning with respect to the management and protection of wetland resources. Additional, more detailed wetland inventories will be conducted in areas that are proposed for development or are otherwise susceptible to degradation or loss due to human activities.

When practicable, the Service will not simply protect but will seek to enhance natural wetland values by using them for educational, recreational, scientific, and similar purposes that do not disrupt natural wetland functions.

For proposed new development or other new activities, plans, or programs that are either located in or otherwise could have adverse impacts on wetlands, the Service will employ the following sequence:

- ◆ Avoid adverse wetland impacts to the extent practicable.
- ◆ Minimize impacts that cannot be avoided.
- ◆ Compensate for remaining unavoidable adverse wetland impacts by restoring wetlands that have been previously destroyed or degraded.

Compensation for wetland impacts or losses will require that at least 1 acre of wetlands be restored for each acre destroyed or degraded.

Actions proposed by the Park Service that have the potential to cause adverse impacts on wetlands must be addressed in an environmental assessment or an environmental impact statement. If the preferred alternative will result in adverse impacts on wetlands, a statement of findings must be prepared and approved in accordance with Director's Order #77-1: Wetland Protection.

(See Decision-making Requirements to Identify and Avoid Impairments 1.4.7; Siting Facilities to Avoid Natural Hazards 9.1.1.5)

4.6.6 Watershed and Stream Processes

The Service will manage watersheds as complete hydrologic systems and minimize human-caused disturbance to the natural upland processes that deliver water, sediment, and woody debris to streams. These processes include runoff, erosion, and disturbance to vegetation and soil caused by fire, insects, meteorological events, and mass movements. The Service will manage streams to protect stream processes that create habitat features such as floodplains, riparian systems, woody debris accumulations, terraces, gravel bars, riffles, and pools. Stream processes include flooding, stream migration, and associated erosion and deposition.

The Service will protect watershed and stream features primarily by avoiding impacts on watershed and riparian vegetation and by allowing natural fluvial processes to proceed unimpeded. When conflicts between infrastructure (such as bridges and pipeline crossings) and stream processes are unavoidable, NPS managers will first consider relocating or redesigning facilities rather than manipulating streams. Where stream manipulation is unavoidable, managers will use techniques that are visually

nonobtrusive and that protect natural processes to the greatest extent practicable.

(See Floodplains 4.6.4; Shorelines and Barrier Islands; 4.8.1.1; Facility Planning and Design 9.1.1. Also see

“Unified Federal Policy for a Watershed Approach to Federal Land and Resource Management,” 65 FR 62566, October 18, 2000)