

1 **[Wording for introductory page.]** The National Park Service will provide visitor and  
 2 administrative facilities that are necessary, appropriate, and consistent with the conservation of  
 3 park resources and values. Facilities will be harmonious with park resources, compatible with  
 4 natural processes, esthetically pleasing, functional, energy- and water- efficient, cost effective,  
 5 universally designed, and as welcoming as possible to all segments of the population. Park  
 6 facilities and operations will demonstrate environmental leadership by incorporating sustainable  
 7 practices to the maximum extent practicable in planning, design, siting, construction, and  
 8 maintenance.

## 9 **Chapter 9: Park Facilities**

### 10 **9.1 General**

11 The Organic Act, which created the National Park Service in 1916, directs the Service to  
 12 conserve park resources “unimpaired” for the enjoyment of future generations. The 1970  
 13 National Park System General Authorities Act, as amended in 1978, prohibits the Service from  
 14 allowing any activities that would cause derogation of the values and purposes for which the  
 15 parks have been established. Taken together, these two laws impose on NPS managers a strict  
 16 mandate to protect park resources and values. (Throughout Management Policies, “impairment”  
 17 is construed to also encompass “derogation.”) In protecting park resources and values, the  
 18 Service will demonstrate environmental leadership and a commitment to the principles of  
 19 sustainability **and asset management** in all facility developments and operations. This  
 20 commitment will be made obvious to the public in the choices and decisions that are made, and  
 21 through appropriate educational opportunities.

22 Support facilities necessary to house, transport, inform, and serve visitors and staff require  
 23 proper planning, design, programming, construction, operation, and maintenance. The Service  
 24 must avoid the construction of buildings, roads, and other development that will cause  
 25 unacceptable impacts on park resources values. The Service must also avoid the future operation  
 26 and maintenance costs of unnecessary or ineffective facilities, **regardless of how the asset**  
 27 **investment is funded. The Service must also recognize the ongoing operations and maintenance**  
 28 **costs of its facilities and be able to sustain them over time.** Therefore, the Service will not  
 29 develop or redevelop a facility within a park until a determination has been made that the facility  
 30 is necessary and appropriate, and that it would not be practicable for the facility to be developed,  
 31 or the service provided, outside the park. This policy recognizes, for example, that a gas station  
 32 or a grocery store may be necessary to park use and enjoyment, but that it may not need to be  
 33 located within the park. **Special considerations may be necessary in Alaska given section 1306**  
 34 **of ANILCA (16 USC 3196).**

35 **Partnership construction projects will be held to the same standards articulated above. In**  
 36 **addition, where donated funds are used, the Service will follow the requirements of Director’s**  
 37 **Order #21.**

38 *(See Park Management 1.4; Decision-making Requirements to Identify and Avoid Impairments*  
 39 *1.4.7; Evaluating Impacts on Natural Resources 4.1.3; Planning 5.2; Commercial Visitor*

1 *Services Planning 10.2.2; Director's Order #80: Asset Management; Director's Order #21:*  
 2 *Fundraising and Donations)*

### 3 **9.1.1 Facility Planning and Design**

4 The protection of each park's resources and values will be the primary consideration in facility  
 5 development decisions. Facilities for visitor use and park management will be consistent with  
 6 each park's authorizing legislation, and with approved general management plans, development  
 7 concept plans, and associated planning documents. The planning and design of park facilities  
 8 will be accomplished by interdisciplinary teams constituted to meet the resource stewardship,  
 9 programmatic, and technical requirements of the project. Public input will be sought at the  
 10 earliest stage of planning and design, particularly in those cases where controversy is likely.

11 The Park Service will meet its facility development needs in a cost- effective manner, ensuring  
 12 that value is returned for every decision made. Only development projects that are shown to be  
 13 an appropriate use of funds, and economically feasible, will be approved. Value- analysis and  
 14 value- engineering techniques, such as functional analysis and cost evaluation, will be applied to  
 15 achieve the lowest life- cycle cost, consistent with required environmental and energy  
 16 performance, reliability, quality, safety, and resource protection. Construction and operational  
 17 cost estimates will be continually reviewed throughout the planning and development processes  
 18 to avoid excessive, unwarranted, or unnecessary costs. Development projects will also be  
 19 continually reviewed for opportunities to add value and benefits that will help achieve the NPS  
 20 mission.

21 Designs for park facilities, regardless of their origin (NPS, contractor, concessioner, or other),  
 22 will utilize NPS facility models, and will be harmonious with and integrated into the park  
 23 environment. They will also be subject, throughout all phases of design and construction, to the  
 24 same code compliance; the same high standards of sustainable design, "universal design," and  
 25 functionality; and the same review and approval processes. Park Service requirements for  
 26 sustainable design and functionality include protection of the natural and cultural environments,  
 27 resource conservation, energy conservation, pollution prevention, defensible space for fire safety,  
 28 and fostering education about sustainable design and practices.

29 The Service will issue, and update as necessary, guiding principles for sustainable design to be  
 30 applied throughout the national park system, consistent with federal regulations such as  
 31 Executive Order 13123 (Greening the Government Through Efficient Energy Management),  
 32 Executive Order 13101 (Greening the Government Through Waste Prevention, Recycling and  
 33 Federal Acquisition), and Executive Order 13327 (Federal Real Property Asset Management).

34 *(See Levels of Park Planning 2.3; General 4.1; Lightscape Management 4.10. Also see*  
 35 *Director's Orders #13A: Environmental Management Systems; and #90: Value Analysis; NPS*  
 36 *Guiding Principles of Sustainable Design)*

#### 37 **9.1.1.1 Life-cycle Costs**

1 The total cost of a system, facility, or other product will be considered in its planning, design,  
2 and construction. Total cost will be computed over a product's or system's useful life, or other  
3 specified period of time, using economic analysis. Life-cycle costs include acquisition, shipping,  
4 initial construction or installation, operating and maintenance, environmental and energy  
5 consumption, water, wastewater, and the costs of eventual disposal or deconstruction of the  
6 system, facility, and/or product. To the extent practicable, the waste implications of materials,  
7 products, and by-products (including product "life cycle" pollution) should be considered as part  
8 of life- cycle costs. When the cost of facility deconstruction is included in the life- cycle cost  
9 analysis, deductions may be factored in for the salvage value of the recyclable materials.

10 *(Also see Director's Orders #13: Environmental Leadership; and #90: Value Analysis)*

### 11 **9.1.1.2 Integration of Facilities into the Park Environment**

12 Whenever feasible and authorized by Congress, major park facilities—especially those that can  
13 be shared with other entities—should be developed outside of park boundaries. The Service will  
14 encourage the private sector to meet facility needs in gateway communities, and thus contribute  
15 to local economic development, encourage competition, increase choices for visitors, and  
16 minimize the need for in- park construction. Where possible, appropriate, and authorized, the  
17 Park Service will cooperatively establish and maintain administration/ information facilities with  
18 other federal, state, or local entities.

19 If facilities must be located inside park boundaries, the preferred locations will be those that  
20 minimize impacts to park resources, and are situated to stimulate the use of alternative  
21 transportation systems, bicycle routes, and pedestrian walkways. Major facilities within park  
22 boundaries will be placed only in locations identified in an approved GMP, or in implementation  
23 planning documents, as being suitable and appropriate. Facility siting will take into account the  
24 need for protection from fires, and take maximum advantage of factors such as solar energy,  
25 wind direction and speed, natural landscaping, and other natural features.

26 When structures are no longer functional in their present locations, or are determined to be  
27 inappropriately placed in important resource areas, they will be removed subject to appropriate  
28 compliance.

29 When the determination has been made through a planning process that it is appropriate for a  
30 facility to be constructed within park boundaries, all facilities will be integrated into the park  
31 landscape and environs with sustainable designs and systems to minimize environmental impact.  
32 Development will not compete with or dominate park features, or interfere with natural  
33 processes, such as the seasonal migration of wildlife or hydrologic activity associated with  
34 wetlands.

35 If a cohesive design theme is desired, recommended, or required, the theme will reflect the  
36 purpose and character of the park, or, in a large park, of an individual developed area. Standard  
37 designs and components may be used, but they will be adapted as appropriate to the specific site  
38 and conditions as part of the design process.

1 The full integration of facilities into the park environment will involve:

- 2 • Sensitivity to cultural, regional, esthetic, and environmental factors (e.g., solar orientation,  
3 prevailing winds, landscaping, vulnerability to wildfire and other natural hazards) in the  
4 selection of site, construction materials, and forms;
- 5 • Innovative concepts for grouping facilities and activities, both in the design of new  
6 development and in the re-design of existing complexes, building on the architectural and  
7 landscape elements already present;
- 8 • Thorough interdisciplinary resource, user, and short- and long- term structure maintenance  
9 analysis;
- 10 • The long-term need for, and sustainable use of, water, energy, and waste disposal resources;
- 11 • Assessment of the transportation and mobility needs of park visitors, as well as concessioner  
12 and park employees within the park, and for accessing the park from gateway communities;  
13 and
- 14 • Knowledge about the values and socio-cultural interests of groups, including Native  
15 Americans, traditionally associated with the park.

16 *(See Environmental Leadership 1.8; General Management Planning 2.3.1; Lightscape*  
17 *Management 4.10; Historic and Prehistoric Structures 5.3.5.4; Protection of Cultural Values*  
18 *9.1.1.3; Siting Facilities to Avoid Natural Hazards 9.1.1.5; Visitor Centers 9.3.1.3; Commercial*  
19 *Visitor Services Planning 10.2.2)*

### 20 **9.1.1.3 Protection of Cultural Values**

21 When important cultural resources are present, efforts will be made to utilize existing  
22 contributing structures. New visitor or administration structures will harmonize with the area and  
23 the cultural resources in proportion, color, and texture. No attempt will be made to duplicate or  
24 mimic a historic design, nor will any modern construction be portrayed to the public as being  
25 historic. However, vernacular styles of architecture are appropriate when they provide visual  
26 compatibility with the cultural landscape. Application of the “criteria of effect” promulgated by  
27 the Advisory Council on Historic Preservation, and compliance with the Council’s regulations on  
28 “Protection of Historic Properties” (36 CFR Part 800), will precede any development. These  
29 criteria apply to all historic properties.

30 *(See Identification and Evaluation of Resources 5.1.3; Planning 5.2; Treatment of Cultural*  
31 *Resources 5.3.5. Also see Secretary of the Interior’s Standards and Guidelines for Archeology*  
32 *and Historic Preservation)*

### 33 **9.1.1.4 Adaptive Use**

34 NHPA and Executive Order 13006 require each federal agency— prior to acquiring,  
35 constructing, or leasing buildings— to use, to the maximum extent feasible, historic properties  
36 available to it, whenever operationally appropriate and economically prudent. (16 USC 470h-  
37 2(a)( 1)). The Act also requires each agency to implement alternatives for the adaptive use of  
38 historic properties it owns, if that will help ensure the properties’ preservation. Therefore, the  
39 adaptive use of historic and non- historic buildings for operations such as visitor centers, hostels,

1 and administrative offices, will be considered first, before new construction, provided that (1) it  
2 can meet park objectives and current code requirements; (2) its use will not be an intrusion on  
3 significant natural or cultural resources; and (3) a cost savings will be realized. Even when the  
4 cost of adaptive use is greater than new construction, it may still be justified. Use of historic  
5 buildings will comply with all laws, regulations, and policies regarding the treatment and use of  
6 cultural resources.

7 *(See Physical Access for Persons with Disabilities 5.3.2; Use of Historic Structures 5.3.5.4.7)*

#### 8 **9.1.1.5 Siting Facilities to Avoid Natural Hazards**

9 The Service will strive to site facilities where they will not be damaged or destroyed by natural  
10 physical processes. Natural hazard areas include sites with unstable soils and geologic  
11 conditions, fault zones, thermal areas, floodplains, flash- flood zones, fire- prone vegetation, and  
12 coastal high- hazard areas. Park development that is damaged or destroyed by a destructive,  
13 hazardous, or catastrophic natural event will be thoroughly evaluated for relocation or  
14 replacement by new construction at a different location. If a decision is made to relocate or  
15 replace a severely damaged or destroyed facility, it will be placed, if practicable, in an area that  
16 is believed to be free from natural hazards. In areas where dynamic natural processes cannot be  
17 avoided, such as seashores, developed facilities should be sustainably designed (e.g., removable  
18 in advance of hazardous storms or other conditions). When it has been determined that facilities  
19 must be located in such areas, their design and siting will be based on:

- 20 • A thorough understanding of the nature of the physical processes; and
- 21 • Avoiding or mitigating (1) the risks to human life and property, and (2) the effect of the  
22 facility on natural physical processes and the ecosystem.

23 Requirements for development in floodplains and wetlands are contained in Executive Order  
24 11988 (Floodplain Management); Executive Order 11990 (Protection of Wetlands); Director's  
25 Orders #77- 1 and #77- 10; and other NPS guidance documents.

26 *(See Levels of Park Planning 2.3; Floodplains 4.6.4; Wetlands 4.6.5; Shorelines and Barrier*  
27 *Islands 4.8.1.1; Geologic Hazards 4.8.1.3; Visitor Safety and Emergency Response 8.2.5;*  
28 *Concession Facilities 10.2.6)*

#### 29 **9.1.1.6 Sustainable Energy Design**

30 Any facility development, whether it be a new building, a renovation, or an adaptive re- use of an  
31 existing facility, must include improvements in energy efficiency and reduction in “greenhouse  
32 gas” emissions for both the building envelope and the mechanical systems that support the  
33 facility. Maximum energy efficiency should be achieved using solar thermal and photovoltaic  
34 applications, appropriate insulation and glazing strategies, energy- efficient lighting and  
35 appliances, and renewable energy technologies. Energy- efficient construction projects should be  
36 used as an educational opportunity for the visiting public.

1 All projects **must** incorporate industry standards (such as Leadership in Energy and  
2 Environmental Design LEED) to achieve “Silver Rating” unless a waiver is granted by the  
3 Director.

#### 4 **9.1.2 Accessibility for Persons with Disabilities**

5 The NPS will design, construct, and operate all buildings and facilities so they are accessible to,  
6 and usable by, persons with disabilities to the greatest extent reasonable, in accord with all  
7 applicable laws, regulations, and standards. This means that all new and altered buildings and  
8 facilities will comply with the General Services Administration’s regulations adopting  
9 accessibility standards for the Architectural Barriers Act of 1968 (41 CFR Part 102-76, Subpart  
10 C), and 43 CFR, Part 17, Subpart E, Enforcement of Nondiscrimination on the Basis of Handicap  
11 in Programs or Activities Conducted by the Department of Interior. It also means that a sufficient  
12 number of existing buildings and facilities will be modified to ensure that programs can be  
13 provided in an accessible location.

14 Accessibility will be provided consistent with preserving park resources, visitor safety, and  
15 providing a high- quality visitor experience. In most instances, the degree of accessibility  
16 provided will be proportionately related to the degree of human made modifications in the area  
17 surrounding the facility, and the importance of the facility to people visiting or working in the  
18 park. Accordingly, most administrative offices, some overnight visitor accommodations, some  
19 employee housing, and most interpretive and visitor service facilities will be accessible.  
20 Undeveloped areas, such as those outside the immediate influence of buildings and roads, will  
21 not normally be modified, nor will special facilities be provided for the sole purpose of providing  
22 access to all segments of the population. Accessibility to facilities in threshold areas will be  
23 determined on the basis of topography, the significance of the attraction, the number of physical  
24 modifications being made to the environment, and the modifications necessary to ensure  
25 programmatic accessibility.

26 Transportation systems in parks, including water transportation, will have a sufficient percentage  
27 of fully accessible vehicles or watercraft to provide effective services to persons with disabilities.  
28 In the case of existing systems, the necessary vehicles will be provided on a replacement or  
29 retrofit basis. Until the transportation system has been made fully accessible, a separate  
30 accessible vehicle will be provided, or disabled persons will be allowed to drive their personal  
31 vehicles on otherwise- restricted roadways. In meeting the goal of accessibility, emphasis will be  
32 placed on ensuring that persons with disabilities are afforded experiences and opportunities along  
33 with other visitors, to the greatest extent reasonable. Separate facilities for people with  
34 disabilities are not a substitute for full accessibility to other park facilities, but they may be  
35 allowed where the need for specialized services is clearly demonstrated.

36 *(See Physical Access for Persons with Disabilities 5.3.2; Accessibility for Persons with*  
37 *Disabilities 8.2.4; Accessibility of Commercial Services 10.2.6.2. Also see Director’s Order #42:*  
38 *Accessibility for Visitors with Disabilities)*

#### 39 **9.1.3 Construction**

1 The Service will incorporate sustainable principles and practices into design, siting, construction,  
2 building materials, utility systems, recycling of all unusable materials, and waste management.  
3 Best management practices will be used for all phases of construction activity, including pre-  
4 construction, actual construction, and post-construction. Although new asset construction is  
5 often a viable alternative for meeting visitor needs or protecting resources, the Service will  
6 consider “non-build” alternatives to meet its needs. The non-build alternative is developed and  
7 evaluated as part of the early facility planning and design process.

### 8 **9.1.3.1 Construction Sites**

9 Construction sites will be limited to the smallest feasible area. The selection of construction sites  
10 will consider opportunities for taking advantage of natural sources of lighting, heating, and  
11 cooling (e.g., near an existing or potential stand of deciduous trees) in order to maximize energy  
12 conservation. Ground disturbance and site management will be carefully controlled to prevent  
13 undue damage to vegetation, soils, and archeological resources, and to minimize air, water, soil,  
14 and noise pollution. Protective fencing and barricades will be provided for safety, and to preserve  
15 natural and cultural resources. Effective storm water management measures specific to the site  
16 will be implemented, and appropriate erosion and sedimentation control measures will be in  
17 place at all times. Solid, volatile, and hazardous wastes will be stockpiled, transported, and  
18 disposed of, as appropriate, and in compliance with federal, state, and local laws and regulations.  
19 All materials will be recycled whenever possible.

20 A review and approval of any “hot work” (e.g., welding, use of open flame, grinding) will be  
21 done to ensure fire safety at the construction site. Visual intrusions will be kept to a minimum.  
22 Construction equipment will be in satisfactory condition; i.e., it will be equipped with required  
23 safety components, and not be leaking hazardous liquids or emitting hazardous or undesirable  
24 fumes above allowable legal limits. Care will be exercised to ensure that construction equipment  
25 and all construction materials imported into the park are free of undesirable species. The cost of  
26 restoring areas impacted by construction will be considered part of the cost of construction, and  
27 funding for restoration will be included in construction budgets.

28 *(See Air Resource Management 4.7; Water Resource Management 4.6; Soil Resource*  
29 *Management 4.8.2.4. Also see Denver Service Center specifications section 01570)*

### 30 **9.1.3.2 Re-vegetation and Landscaping**

31 The selection of plant materials and cultivation practices will be guided by the policies for  
32 management of plant materials in section 4.4, and the need for fire-resistant vegetation for  
33 defensible space. To the maximum extent possible, plantings will consist of species that are  
34 native to the park or that are historically appropriate for the period or event commemorated. The  
35 use of exotic plant species is restricted to situations that conform to the exotic species policy in  
36 section 4.4.4. Irrigation to maintain exotic plantings will be avoided, except when it is part of an  
37 approved management program essential to achieve park objectives, and when adequate and  
38 dependable supplies of water are available. When a decision has been made to irrigate, efficient  
39 application must be made of water to protect water resources and ecosystems. Low water use

1 practices that measure soil moisture content, and other technologies such as drip irrigation and  
2 appropriate timing of water applications, should be employed.

3 Prior to using soil fertilizers or other soil amendments in park natural or altered landscapes, parks  
4 must develop a prescription designed to ensure that the amendments will not unacceptably alter  
5 the physical, chemical, or biological characteristics of the soil, biological community, or surface  
6 or ground waters.

7 Wherever practicable, soils and plants affected by construction will be salvaged for use in site  
8 restoration. Any surplus soils and plants may be used, as appropriate, for the restoration of other  
9 degraded areas within the park. Surplus soils not used in this way should be stockpiled for future  
10 use. If additional soil and plants are needed to restore disturbed sites, they may be obtained from  
11 other sites in the park if it is determined that the use of an in-park source will not significantly  
12 affect cultural or natural resources or ecological processes. In any case, imported soils must be  
13 compatible with existing soils, free of undesired seeds and organisms, and fulfill the horticultural  
14 requirements of plants used for restoration.

15 *(See Management of Native Plants and Animals 4.4.2; Genetic Resource Management Principles*  
16 *4.4.1.2; Management of Exotic Species 4.4.4; Water Resource Management 4.6; Soil Resource*  
17 *Management 4.8.2.4; Cultural Landscapes 5.3.5.2; Water Supply Systems 9.1.5.1; Wastewater*  
18 *Treatment Systems 9.1.5.2. Also see Executive Order 13148 (Greening the Government Through*  
19 *Leadership in Environmental Management) section 207, “Environmentally and Economically*  
20 *Beneficial Landscaping”)*

### 21 **9.1.3.3 Borrow Pits and Spoil Areas**

22 Materials from borrow pits, quarries, and other clay, stone, gravel, or sand sources on NPS lands,  
23 including submerged lands, will be extracted and used only

- 24 • By the NPS or its agents or contractors;  
25 • For in-park administrative uses;  
26 • After compliance with NEPA and NHPA, including written findings that  
27 ○ extraction and use of in-park borrow materials does not, or will not, impair park resources  
28 or values, and  
29 ○ it is the park’s most reasonable alternative based on economic, environmental, or  
30 ecological considerations; and  
31 ○ **no outside sources are reasonably available;**  
32 • After compliance with other applicable federal, state, and local requirements.

33 Parks should use existing pits, quarries, or sources, or create new pits, quarries, or sources in the  
34 park only after developing and implementing a park- wide borrow management plan that  
35 addresses the cumulative effects of borrow site extraction, restoration, and importation. NPS  
36 guidance documents, as well as natural and cultural resources and facilities management staff,  
37 should be consulted during plan development and the review of specific proposals.

1 In designated wild and scenic rivers, no new sources may be established, and existing sources  
2 should be closed and reclaimed. Borrow material may be extracted in proposed or designated  
3 wilderness areas only in small quantities for trail use and in accordance with an approved  
4 wilderness management plan.

5 Spoil may be used for beach nourishment or another resource management activity only if the  
6 superintendent first finds that the proposed nourishment or activity will not impair park resources  
7 and values, and is consistent with park planning documents.

8 All existing spoil areas within park units that meet the definition of “solid waste disposal site”  
9 (36 CFR Part 6) will be brought into compliance with NPS solid waste regulations in 36 CFR  
10 6.5. The development of new spoil areas or borrow pits, or the expansion of existing ones, will  
11 be analyzed through the NEPA and NHPA processes. In addition, superintendents will comply  
12 with NPS solid waste regulations and other specific NPS requirements.

13 Proposed borrow pits and spoil areas outside of parks will also be evaluated to ensure that use by  
14 the Service or its contractors does not impair resources or values inside the park, and that  
15 extraction operations comply with all applicable statutes and regulations, including NEPA and  
16 NHPA.

17 *(See Decision-making Requirements to Identify and Avoid Impairments 1.4.7; Geologic Resource*  
18 *Management 4.8; Non- federally Owned Minerals 8.7.3; Re- vegetation and Landscaping*  
19 *9.1.3.2)*

## 20 **9.1.4 Maintenance**

### 21 **9.1.4.1 General**

22 There is a maintenance responsibility and cost for every asset that is administered by the  
23 National Park Service. A regular, periodic inventory and condition assessment of park assets will  
24 be performed to identify deficiencies and to ensure the cost- effective maintenance of all  
25 facilities. The costs of operation and the useful life of facilities and equipment are directly related  
26 to the type and level of maintenance provided. Therefore, the Service will conduct a program of  
27 preventive and rehabilitative maintenance and preservation to (1) provide a safe, sanitary,  
28 environmentally protective, and esthetically pleasing environment for park visitors and  
29 employees; (2) protect the physical integrity of facilities; and (3) preserve or maintain facilities  
30 in their optimum sustainable condition to the greatest extent possible. Preventive and  
31 rehabilitative maintenance programs will incorporate sustainable design elements and practices  
32 to ensure that water and energy efficiency, pollution prevention, and waste prevention and  
33 reduction are standard practice.

34 *(Also see NPS Solid Waste Management Handbook; Executive Order 13101 (Greening the*  
35 *Government Through Waste Prevention, Recycling, and Federal Acquisition); Executive Order*  
36 *13148 (Greening the Government Through Leadership in Environmental Management);*  
37 *Executive Order 13149 (Greening the Government Through Federal Fleet and Transportation*

1 *Efficiency); Executive Order 13327 (Federal Real Property Asset Management); and Director's*  
2 *Order #80: Asset Management)*

### 3 **9.1.4.2 Acquisition of Environmentally Preferable and Energy Efficient-products**

4 In carrying out its maintenance responsibilities, the Park Service will acquire environmentally  
5 preferable and energy efficient products, as required by the Solid Waste Disposal Act, federal  
6 regulations, and Executive orders, and will strive to meet and exceed any Department of the  
7 Interior affirmative acquisition goals that are established. The Service will consider a variety of  
8 attributes when purchasing products, including energy efficiency, biodegradability, toxicity,  
9 recovered material content, packaging, transport cost, and other lifecycle environmental impacts,  
10 such as disposal. The Service will actively pursue opportunities to test and demonstrate  
11 environmentally preferable and energy-efficient products, consistent with its goal of  
12 demonstrating sustainable practices that avoid or minimize environmental impacts.

13 *(See Environmental Leadership 1.8; Concession Operations 10.2.4. Also see Director's Order*  
14 *#13A: Environmental Management Systems)*

### 15 **9.1.5 Utilities**

16 Utilities (i.e., energy, water, and wastewater systems) will be sited outside park boundaries  
17 whenever possible. In-park utilities will be as unobtrusive as possible, and have the least possible  
18 resource impact. The Service will use municipal or other utility systems outside parks whenever  
19 economically and environmentally practicable, and it may participate, when authorized, in cost-  
20 sharing with municipalities and others in meeting new, expanded, or replacement park utility  
21 needs. The Service will use the least polluting power supply options, either through on- site  
22 generation or through power purchases, where appropriate, available, and cost-effective, or  
23 where such purchase helps meet federal or state emissions goals or alternative energy goals.

24 *(See Utilities and Services 10.2.6.4. Also see Director's Order #35A: Sale or Lease of Park*  
25 *Services, Resources or Water in Support of Activities Outside the Boundaries of National Park*  
26 *Areas; and Director's Order #35B: Sale of Park Services to Support Activities Within the*  
27 *Boundaries of National Park Areas)*

#### 28 **9.1.5.1 Water Supply Systems**

29 The National Park Service will use water efficiently and sustainably. Water systems will be  
30 designed to maximally conserve water and the energy used in its treatment and distribution.  
31 Water supply and delivery systems will be designed and maintained to provide sufficient water  
32 to operate fire sprinkler systems and fire hydrants. Water efficient devices will be installed in  
33 retrofit of existing structures and in the building of new structures. New water systems, or  
34 extensions to existing systems, will be constructed only if reasonable conservation measures will  
35 not be sufficient to cover park needs. Where a new system or an expansion is justified, the  
36 system must be properly sized, and the available or projected water supply must be sufficient for  
37 expected needs. Where feasible and appropriate, and given resource availability, groundwater  
38 sources will generally be developed, rather than surface water diversions in parks. Water supply

1 systems, and their operators, must comply with all applicable state and federal health standards.  
2 Outdoor use of water will be limited to those applications deemed essential to park operations or  
3 to protect park values. Consistent with native plant policies, the Service will use efficient  
4 methods for outdoor irrigation. Where appropriate, rainwater should be collected for uses such as  
5 maintenance of landscape features and general cleaning.

6 *(See Water Resource Management 4.6; Campgrounds 9.3.2.1; Comfort Stations 9.3.3. Also see*  
7 *Director's Order #83: Public Health)*

#### 8 **9.1.5.2 Wastewater Treatment Systems**

9 New wastewater systems, or extensions or expansions of existing systems, will be constructed  
10 only if a determination has first been made that reasonable conservation measures will not be  
11 sufficient to cover park needs. In the selection of an appropriate method of wastewater treatment,  
12 factors such as all-season reliability, regulatory and public health issues, cost-effectiveness, and  
13 minimum adverse impact on the environment will all be considered. Where composting toilets  
14 are used, there should be interpretation for visitors regarding the value of recycling organic solid  
15 waste. Wastewater will be adequately treated so that, on its return to water courses, **or when**  
16 **recycled**, it meets or exceeds applicable state and federal water quality standards. Water and  
17 wastewater systems, and their operators, are subject to state and federal health standards.  
18 Superintendents must ensure that operators are certified, and that operations are inspected and  
19 conducted in accordance with all laws, regulations, and policies.

20 *(See Water Resource Management 4.6; Campgrounds 9.3.2.1; Comfort Stations 9.3.3. Also see*  
21 *Director's Order #83: Public Health)*

#### 22 **9.1.5.3 Utility Lines**

23 Where feasible, NPS utility lines will be placed underground, except where such placement  
24 would cause significant damage to natural or cultural resources (such as historic structures or  
25 cultural landscapes). When placed aboveground, utility lines and appurtenant structures will be  
26 located and designed so as to minimize their impact on park resources and values. Whenever  
27 possible and visually acceptable, all utilities will share a common corridor, and will be combined  
28 with transportation corridors. Cost effectiveness, reliability of service, and visual impact will be  
29 considered when deciding whether to install utility lines aboveground or underground. To  
30 minimize the impact of on-grid utility lines, consideration will be given to long-term, cost-  
31 effective, renewable-energy applications, such as the use of photovoltaic, wind, fuel cell, and/or  
32 bio-fuel technologies (either as stand-alones or as hybrid systems), particularly in remote areas.

33 *(See Potential Wilderness 6.2.2.1)*

#### 34 **9.1.5.4 Historic Utilities**

35 Utilities that were present during the historic period will be managed as cultural resources, and  
36 will be governed by the same policies as other cultural resources. Where present needs require

1 upgraded lines and facilities, modern utilities will conform insofar as possible to the appearance  
2 and location of the historic utilities.

3 *(See Treatment of Cultural Resources 5.3.5)*

#### 4 **9.1.6 Waste Management and Contaminant Issues**

5 The National Park Service recognizes the far-reaching impacts that waste products,  
6 contaminants, and wasteful practices have, not only on national park resources, but also on biotic  
7 and abiotic resources elsewhere in the nation and around the world. The Service will therefore  
8 demonstrate environmental leadership, and serve as a model for others to follow in managing  
9 wastes and contaminants.

##### 10 **9.1.6.1 Waste Management**

11 The Service will implement solid and hazardous waste management practices that integrate  
12 waste reduction, reuse, and recycling programs to minimize the generation and disposal of solid  
13 and hazardous waste at, and from, NPS sites. For purposes of this section, solid and hazardous  
14 wastes include any materials that are so defined in the Solid Waste Disposal Act, as amended.  
15 The Service will require the use of biodegradable materials, the reuse and recycling of materials,  
16 and other appropriate measures to minimize solid waste and conserve natural resources to the  
17 fullest extent possible. Innovation in the use of recyclable or reusable materials is encouraged.  
18 For example, the NPS may encourage the remanufacturing of recyclable materials into  
19 acceptable sales items for willing markets, including the NPS.

20 The disposal in parks of solid wastes generated by non-NPS activities is, in most cases,  
21 incompatible with national park values. All disposal of solid waste on lands and waters within  
22 the boundaries of a unit of the park system, whether federally or non-federally owned, must  
23 comply with NPS regulations in 36 CFR Part 6, which implement Public Law 98-506 (16 USC  
24 4601-22(c)). These regulations are designed to ensure that all activities associated with the  
25 operation of solid waste disposal sites within the boundaries of national parks are conducted in a  
26 manner that will (1) prevent the deterioration of air and water quality; (2) prevent the  
27 degradation of natural and cultural resources; and (3) reduce adverse effects on visitor  
28 enjoyment. In accordance with the spirit and intent of these requirements, the NPS will, to the  
29 extent practicable, avoid the use of park lands for landfills by such means as (1) implementing  
30 waste minimization and substitution practices; (2) diverting material to recycling facilities or  
31 other appropriate locations; and (3) using storage or treatment facilities that meet or exceed DOI  
32 and all legal and regulatory standards for any generated waste that is not diverted.

33 The NPS will remove landfill operations and associated impacts from parks where feasible.  
34 Cooperative waste management solutions that minimize adverse impacts on park resources are  
35 also encouraged for areas where alternatives to landfilling are scarce for both parks and adjacent  
36 communities.

37 Open burning for solid waste disposal will not be permitted in parks, except in the very limited  
38 circumstances described in Director's Order #18: Wildland Fire Management.

1 Any hazardous waste that the Service generates will be disposed of separately from solid waste,  
2 in full accord with all applicable legal requirements.

3 *(See Air Quality 4.7.1; River Use 8.2.2.3; Backcountry Use 8.2.2.4; Miscellaneous Management*  
4 *Facilities 9.4.5. Also see Director's Order #18: Wildland Fire Management; Director's Order*  
5 *#30A: Hazardous and Solid Waste Management)*

#### 6 **9.1.6.2 NPS Response to Contaminants**

7 The Service will make every reasonable effort to prevent or minimize the release of  
8 contaminants on, or that will affect, NPS lands or resources, and will take all necessary actions to  
9 control or minimize such releases when they occur. For purposes of this section, contaminants  
10 include any substance that may pose a risk to NPS resources or is regulated or governed by  
11 statutes referenced in this subsection. Prevention and minimization will include, but not be  
12 limited to, (1) the acquisition, use, and selection of non-toxic or less toxic materials; (2)  
13 implementation of safe use, storage, and disposal practices; (3) recycling of spent materials; (4)  
14 implementation of effective hazard communication programs for employees, contractors,  
15 concessioners, and visitors; (5) development and extension of appropriate emergency response  
16 programs; and (6) acting to ensure that parties responsible for contamination or threatened  
17 contamination of NPS property bear the responsibility for addressing such contamination.

18 Activities pertaining to contaminants, including response actions or handling, acquisition,  
19 storage, transportation, and disposal of such substances, will comply with federal, state, and local  
20 laws and regulations including, but not limited to, (1) the Solid Waste Disposal Act, including  
21 the Resource Conservation and Recovery Act of 1976 and the Hazardous and Solid Waste  
22 Amendments of 1984, as amended; (2) the Comprehensive Environmental Response,  
23 Compensation and Liability Act of 1980 (CERCLA); (3) the Oil Pollution Act of 1990; (4) the  
24 Clean Water Act; (4) the Hazardous Materials Transportation Act; and (5) the Toxic Substances  
25 Control Act. Such activities will also comply with the NPS integrated pest management program.

26 The Service will identify, assess, and take response actions as promptly as possible to address  
27 releases and threatened releases of contaminants into the environment. Each park will have an oil  
28 and chemical spill response management plan for spills that result from NPS activities, or from  
29 activities that are beyond NPS control (such as commercial through-traffic on roads that pass  
30 through a park). The plans will place first priority on responder and public safety. Employees  
31 will not be permitted to respond to hazardous materials spills unless they are properly qualified  
32 and certified in accordance with Director's Order #30B: Hazardous Spill Response.

33 The Service will take affirmative and aggressive action to ensure that all NPS costs and damages  
34 associated with the release of contaminants are borne by those responsible for the contamination  
35 of NPS property. In addition, when lands are proposed for acquisition by the NPS, the Service  
36 will take steps to avoid or minimize its liability for the contamination of NPS property caused by  
37 other parties. The Service will include in the pre-acquisition environmental assessment process  
38 the identification of recognizable environmental conditions, such as those associated with prior  
39 or existing commercial facilities, mining sites, and landfills. Any recognizable existing or

1 potential environmental contamination of lands proposed for inclusion in a park will be brought  
2 to the attention of the regional director as soon as they are identified.

3 *(See Criteria for Inclusion 1.3; Chapter 3: Land Protection; Pest Management 4.4.5; Emergency*  
4 *Preparedness and Emergency Operations 8.2.5.2. Also see Director's Orders #25: Land*  
5 *Protection; #30A: Hazardous and Solid Waste Management; #30B: Hazardous Spill Response;*  
6 *30C: Damage Assessments)*

### 7 **9.1.7 Energy Management**

8 The National Park Service will conduct its activities in ways that use energy wisely and  
9 economically. Park resources and values will not be degraded to provide energy for NPS  
10 purposes. The Service will adhere to all federal policies governing energy and water efficiency,  
11 renewable resources, use of alternative fuels, and federal fleet goals as established in the Energy  
12 Policy Act of 1992. The Service will also comply with applicable Executive orders, including  
13 Executive Order 13123 (Greening the Government Through Efficient Energy Management), and  
14 Executive Order 13149 (Greening the Government Through Federal Fleet and Transportation  
15 Efficiency).

16 All facilities, vehicles, and equipment will be operated and managed so as to minimize the  
17 consumption of energy, water, and non- renewable fuels. Full consideration will be given to the  
18 use of alternative fuels. Alternative transportation programs and the use of bio- based fuels will  
19 be encouraged, where appropriate. Renewable sources of energy, and new developments in  
20 energy-efficiency technology, including products from the recycling of materials and waste, will  
21 be used where appropriate and cost effective over the life cycle. However, energy efficiencies  
22 will not be pursued if they will cause adverse impacts to park resources and values.

23 To conserve energy, park personnel and visitors may be provided with opportunities for in- park  
24 public transportation, or trails and walks for non- motorized transport. As an environmental  
25 leader, the Service will interpret for the public the overall resource protection benefits from the  
26 efficient use of energy, and will actively educate and motivate park personnel and visitors to  
27 utilize sustainable practices in conserving energy. The Service will also pursue partnership  
28 efforts with the Department of Energy and others to further develop and meet NPS energy  
29 conservation goals.

30 *(See Air Quality 4.7.1; Lightscape Management 4.10; Resource Issue Interpretation and*  
31 *Education 7.5.3; Maintenance 9.1.4; Transportation Systems and Alternative Transportation*  
32 *9.2; Trails and Walks 9.2.3; Sustainable Energy Design 9.1.1.6. Also see Director's Order #13A:*  
33 *Environmental Management Systems)*

### 34 **9.1.8 Structural Fire Protection and Suppression**

35 Superintendents will manage structural fire activities as part of a comprehensive interdisciplinary  
36 effort to protect resources and promote the safe and appropriate public enjoyment of those  
37 resources. Fire prevention, protection, and suppression will be primary considerations in the  
38 design, construction, rehabilitation, maintenance, and operation of all facilities. Structural fires

1 will be suppressed to prevent the loss of human life and minimize damage to property and  
2 resources. The Service's Structural Fire Protection and Suppression Program will provide,  
3 through Director's Order #58 and Reference Manual 58, additional policy, standards, operational  
4 procedures, and accountability to meet the diverse needs and complexities of individual parks.  
5 The goal is to ensure that all national park areas receive an appropriate level of fire protection,  
6 provided in a safe and cost-effective manner by qualified personnel.

7 Each superintendent will complete a structural fire assessment and develop a structural fire plan  
8 to meet park needs. Structural fire protection and suppression capabilities will be maintained in  
9 accordance with those plans. Prevention priorities will focus on occupied structures and cultural  
10 resources, with emphasis placed evenly on code compliance, early warning detection,  
11 suppression systems, and employee training and awareness.

12 Fire prevention through code-compliant new construction, upgrading of existing structures,  
13 standardized and regularly scheduled fire inspections, and properly installed and maintained  
14 detection and suppression systems will be the primary means of addressing and correcting NPS  
15 structural fire deficiencies. Where these measures are not sufficient to meet park needs, aid  
16 agreements will be entered into with non-NPS entities capable of providing requisite fire  
17 suppression. Support from neighboring fire protection organizations is encouraged, and  
18 superintendents should enter into appropriate agreements whenever possible to enhance fire-  
19 fighting capabilities. Development of a park fire brigade will be considered only when all other  
20 options have been explored and found unacceptable.

21 *(See Fire Management 4.5; Fire Detection, Suppression, and Post-fire Rehabilitation and*  
22 *Protection 5.3.1.2; Water Supply Systems 9.1.5.1. Also see Director's Order #58: Structural Fire*  
23 *Management)*

## 24 **9.2 Transportation Systems and Alternative Transportation**

25 The location, type, and design of transportation systems and their components (e.g., roads,  
26 bridges, trails, and parking areas), and the use of alternative transportation systems, all strongly  
27 influence the quality of the visitor experience. These systems also affect, to a great degree, how  
28 and where park resources will be impacted. For these reasons, management decisions regarding  
29 transportation facilities require a full, interdisciplinary consideration of alternatives, and a full  
30 understanding of their consequences. Traditional practices of building wider roads and larger  
31 parking areas to accommodate more motor vehicles are not necessarily the answer. The Service  
32 must find better transportation solutions, which will preserve the natural and cultural resources in  
33 its care while providing a high-quality visitor experience.

34 Early NPS participation in transportation studies and planning processes is crucial to the long  
35 term strategy of working closely with other federal agencies; tribal, state and local governments;  
36 regional planning bodies; citizen groups; and others to enhance partnering and funding  
37 opportunities. The Service will participate in all transportation planning forums that may result in  
38 links to parks or impacts to park resources. Working with federal, tribal, state, and local agencies  
39 on transportation issues, the Service will seek reasonable access to parks, and connections to  
40 external transportation systems. The Service will also advocate corridor crossings for terrestrial

1 and aquatic wildlife, and other accommodations to promote biodiversity, and to avoid or mitigate  
2 (1) harm to individual animals, (2) the fragmentation of plant and animal habitats, and (3) the  
3 disruption of natural systems.

4 Depending on a park's size, location, resources, and level of use, the NPS will, where  
5 appropriate, emphasize and encourage alternative transportation systems, which may include a  
6 mix of buses, trains, ferries, trams, and—preferably—nonmotorized modes of access to, and  
7 moving within, parks. In general, the preferred modes of transportation will be those that  
8 contribute to maximum visitor enjoyment of, and minimum adverse impacts to, park resources  
9 and values.

10 Before a decision is made to design, construct, expand, or upgrade access to or within a park,  
11 non- construction alternatives—such as distributing visitors to alternative locations—must be  
12 fully explored. If non-construction alternatives will not achieve satisfactory results, then a  
13 development solution should consider whether the project:

- 14 • Is appropriate and necessary to meet park management needs or to provide for visitor use and  
15 enjoyment;
- 16 • Is designed with extreme care and sensitivity to the landscape through which it passes;
- 17 • Will not cause unacceptable impacts to natural and cultural resources, and will minimize or  
18 mitigate those that cannot be avoided;
- 19 • Will reduce traffic congestion, noise, air pollution, and adverse effects on park resources and  
20 values;
- 21 • Will not cause use in the areas it serves to exceed the areas' visitor carrying capacity;
- 22 • Will incorporate the principles of energy conservation and sustainability;
- 23 • Is able to demonstrate financial and operational sustainability;
- 24 • Will incorporate universal design principles to provide for accessibility for all people,  
25 including those with disabilities;
- 26 • Will take maximum advantage of interpretive opportunities and scenic values;
- 27 • Will not violate federal, state, or local air pollution control plans or regulations;
- 28 • Is based on a comprehensive and multi-disciplinary approach that is fully consistent with the  
29 park's general management plan and asset management plan;
- 30 • Will enhance the visitor experience by offering new or improved interpretive or recreational  
31 opportunities, by simplifying travel within the park, or by making it easier or safer to see  
32 park features.

33 All transportation systems may be considered conceptually. Before advancing beyond the  
34 conceptual stage, appropriate approvals must be obtained from the Director.

35 If a decision is made to construct, expand, or reconstruct a park transportation system, the  
36 Service will address the need for terrestrial and aquatic wildlife corridor crossings and other  
37 accommodations to avoid or mitigate harm to individual animals, the fragmentation of plant and  
38 animal habitats, and the disruption of natural systems.

39 *(See Environmental Leadership 1.8; General Management Planning 2.3.4; Implementation*  
40 *Planning 2.3.3; Air Quality 4.7.1; General 9.1; Accessibility for Persons with Disabilities 9.1.2;*

1 *Energy Management 9.1.7. Also see Director's Orders #87A: Park Roads and Parkways; #87B:*  
2 *Alternative Transportation Systems; #87C: Transportation System Funding; #87D: Non- NPS*  
3 *Federal Aid Roads)*

## 4 **9.2.1 Road Systems**

### 5 **9.2.1.1 Park Roads**

6 Park roads will be well constructed, sensitive to natural and cultural resources, reflect the highest  
7 principles of park design, and enhance the visitor experience. Park roads are generally not  
8 intended to provide fast and convenient transportation; rather, they are intended to enhance the  
9 quality of a visit, while providing for safe and efficient travel, with minimal or no impacts on  
10 natural and cultural resources. For most parks, a road system is already in place. When plans for  
11 meeting the transportation needs of these parks are updated, a determination must be made as to  
12 whether the road system should be maintained as is, reduced, expanded, re-oriented, eliminated,  
13 or supplemented by other means of travel. Before roads are chronically at or near capacity, the  
14 use of alternative destination points or transportation systems, or limitations on use, will be  
15 considered as alternatives to road expansion.

16 Park road designs are subject to NPS *Park Road Standards*, which are adaptable to each park's  
17 unique character and resource limitations. Although some existing roads do not meet current  
18 engineering standards, they may be important cultural resources whose values can and should be  
19 preserved **with attention to visitor safety.**

20 *(Also see Director's Order #87A: Park Roads and Parkways)*

### 21 **9.2.1.2 Non-NPS Roads**

22 Many parks contain roads that were not constructed by the NPS and may not be under NPS  
23 jurisdiction. Most often, these roads existed before the areas became part of the national park  
24 system, and the Park Service must rely heavily on tribal, state, or local authorities to maintain the  
25 roads consistent with park management goals. These other government authorities sometimes  
26 propose to expand an existing road, or to construct a new road within a park, with significant  
27 potential for adversely affecting park resources and values. Superintendents must consider road  
28 proposals in strict accordance with section 9.2.1.2.2, and Director's Order #87D: Non-NPS  
29 Federal Aid Roads. **Where practicable, and after concurrence of the entity with road jurisdiction,**  
30 **non-NPS roads that are no longer needed will be closed or removed, and the area will be restored**  
31 **to a natural condition.** The Service will not permit the public or private construction of new  
32 roads for access to inholdings unless specifically authorized by law.

33 **Access to inholdings in Alaska will be managed in accordance with the provisions of section**  
34 **1110(b) of ANILCA (16 USC 3170 (b)) and 43 CFR Part 36.**

35 *(See General 8.6.4.1)*

### 36 **9.2.1.2.1 Existing Commercial and Other Through-Traffic**

1 The Service will work with appropriate governments and private organizations and individuals to  
2 minimize the impacts of traffic on park resources and values. Whenever possible, commercial  
3 traffic will be prohibited on roads within parks, except for the purpose of serving park visitors  
4 and park operations. However, in accordance with section 8.6.5 and applicable NPS regulations  
5 (36 CFR 5.6):

- 6 • Superintendents will permit commercial vehicles to use park roads when necessary for access  
7 to private lands within or adjacent to a park area to which access is otherwise not available;  
8 and
- 9 • Superintendents may issue permits for commercial vehicle traffic to pass through the park in  
10 emergencies.

11 When a determination is made that existing through-traffic routes have adverse impacts on park  
12 resources and values, the Service will work with the appropriate government authorities to  
13 minimize these impacts, or to have the traffic flow re-routed over an alternative route. Where  
14 feasible and practicable, roads that are no longer needed will be closed or removed, and the area  
15 restored to a natural condition.

#### 16 **9.2.1.2.2 Construction and Expansion Proposals.**

17 Superintendents must take an active role in overall community and transportation planning  
18 activities to educate all parties about the NPS mandate to protect park resources. The NPS will  
19 work closely with the U. S. Department of Transportation (DOT) and state DOTs when new  
20 highways or roads, or expansions of existing road corridors, that may impact park lands are  
21 proposed. In accordance with 23 USC 138 and the Organic Act, the NPS will object to any  
22 proposal to route a state or local road through national park lands, or to increase the size of a  
23 right-of-way for an existing road, unless the NPS first determines (or concurs with a DOT  
24 determination) that:

- 25 • There is no feasible and prudent alternative;
- 26 • All possible planning has taken place to minimize and mitigate harm to the park;
- 27 • It will not be contrary to the public interest, or inconsistent with the purposes for which the  
28 park was established;
- 29 • It will not cause health and safety risks to visitors or park staff; and
- 30 • It will conform to NPS standards and practices for road design, engineering, and  
31 construction.

32 In making these determinations, the Service will take into account the factors listed in section  
33 9.2.

34 Responsibility for future maintenance—meeting NPS standards—must be identified prior to NPS  
35 approval of a proposal.

36 *(Also see Director's Order #87D: Non-NPS Federal Aid Roads)*

#### 37 **9.2.2 Trails and Walks**

1 Trails and walks provide the only means of access into many areas within parks. These facilities  
2 will be planned and developed as integral parts of each park's transportation system, and  
3 incorporate principles of universal design. Trails and walks will serve as management tools to  
4 help control the distribution and intensity of use. All trails and walks will be carefully situated,  
5 designed, and managed to

- 6 • Reduce conflicts with automobiles and incompatible uses;
- 7 • Allow for a satisfying park experience;
- 8 • Allow accessibility by the greatest number of people; and
- 9 • Protect park resources.

10 Heavily used trails and walks in developed areas may be surfaced as necessary for visitor safety,  
11 accessibility for persons with impaired mobility, resource protection, or erosion control. Surface  
12 materials should be carefully selected, taking into account factors such as the purpose and  
13 location of a trail or walk, and the potential for erosion and other environmental impacts.

14 The visitor use and management aspects of trails and walks are addressed in section 8.2.2,  
15 "Recreational Activities."

16 *(See Chapter 7: Interpretation and Education; Accessibility for Persons with Disabilities 9.1.2.*  
17 *Also see Director's Order #42: Accessibility for Visitors with Disabilities)*

#### 18 **9.2.2.1 Cooperative Trail Planning**

19 The Park Service will cooperate with other land managers, non-profit organizations, and user  
20 groups to facilitate local and regional trail access to parks. When parks abut other public lands,  
21 the Service will participate in inter-agency, multijurisdictional trail planning. When an effective  
22 trail system exists, and when otherwise permitted, hostels or similar low cost overnight facilities  
23 may be provided, if they are consistent with the park's general management plan, and harmonize  
24 with the natural and/ or cultural resources.

25 *(See Hostels and Shelters 9.3.2.3)*

#### 26 **9.2.2.2 Hiking Trails**

27 Trail design will vary to accommodate a wide range of users, and will be appropriate to user  
28 patterns and site conditions. Wetlands will generally be avoided and, where possible, they will be  
29 spanned by a boardwalk or other means, using sustainable materials that will not disturb  
30 hydrologic or ecological processes. Backcountry trails will offer visitors a primitive outdoor  
31 experience, and will be unsurfaced and modest in character, except where a more durable surface  
32 is needed. The use of non-native materials is generally not permitted on backcountry trails.

33 *(See Trails in Wilderness 6.3.10.2; Wilderness General Policy 6.4.1; Backcountry Use 8.2.2.4)*

#### 34 **9.2.2.3 Equestrian Trails**

1 Equestrian trails and related support facilities, such as feed boxes and hitch rails, may be  
2 provided when they are consistent with park objectives, and when site conditions are suitable.  
3 Horse camps should be designed with user interest in mind, and consistent with NPS policy.  
4 Photovoltaic systems should be evaluated to power any necessary water systems, and ramps for  
5 mounting the animals must be provided for persons with disabilities.

6 *(See Grazing and Livestock Driveways 6.4.7; Grazing by Domestic and Feral Livestock 8.6.8;*  
7 *Accessibility of Commercial Services 10.2.6.2)*

#### 8 **9.2.2.4 Bicycle Trails**

9 Bicycle routes may be considered as an alternative to motor vehicle access. Bicycle travel may  
10 be integrated with park roads when determined to be safe and feasible. Bicycle trails may be  
11 paved or stabilized for the protection of resources, and for the safety, and convenience of  
12 travelers. In accordance with 36 CFR 4.30, bicycle use is allowed on park roads, in parking  
13 areas, and on routes designated for bicycle use. The designation of bicycle routes is allowed in  
14 developed areas and in special use zones based on a written determination that such use is  
15 consistent with the protection of a park's natural, cultural, scenic, and esthetic values, safety  
16 considerations, and management objectives, and will not disturb wildlife or other park resources.  
17 A similar determination may be made to designate routes outside developed areas and special use  
18 zones; however, the designation must be made by promulgating a special regulation.

19 *(See General Policy 6.4.1; Backcountry Use 8.2.2.4. Also see 36 CFR 4.30)*

#### 20 **9.2.2.5 Water Trails**

21 Water access and use may be provided when consistent with resource protection needs.  
22 Appropriate locations and levels of use will be determined in the park's general management  
23 plan. The NPS will work with other agencies and organizations, as appropriate, to develop and  
24 provide education and interpretation for water trails that access parks; to promote understanding  
25 and enjoyment; and to protect waterways and adjacent lands.

#### 26 **9.2.2.6 Interpretive Trails**

27 Interpretive trails and walks, both guided and self-guiding, may be used for purposes of visitor  
28 appreciation and understanding of park values.

#### 29 **9.2.2.7 National Trails**

30 The Service will cooperate with other land managers, nonprofit organizations, and user groups to  
31 facilitate the use of national scenic, historic, connecting/side, and recreation trails, in accordance  
32 with the laws and policies applicable to such trails, and to the extent that trail management and  
33 use would not detract from the basic mission, and the protected resources and values, of  
34 individual parks.

35 *(Also see Director's Order #45: National Trails System; National Trails System Act)*

### 1 **9.2.2.8 Trailheads**

2 Trailheads, and trail access points from which trail use can begin, will be carefully tied into other  
3 elements of the park development and circulation system to facilitate safe and enjoyable trail use,  
4 and efficient management.

### 5 **9.2.2.9 Trail Bridges**

6 Trail bridges may be used for crossing swift waters, areas prone to flash- flooding, and other  
7 places presenting potential safety hazards. Less obtrusive alternatives to bridges, such as, fords,  
8 and trail relocation, will be considered before a decision is made to build a bridge. A bridge may  
9 be the preferred alternative when necessary to prevent stream bank erosion, or to protect  
10 wetlands or fisheries. If a bridge is determined to be appropriate, it will be kept to the minimum  
11 size needed to serve trail users, and be designed to harmonize with the surrounding natural scene  
12 and be as unobtrusive as possible.

13 *(See Water Resource Management 4.6)*

### 14 **9.2.3 Traffic Signs and Markings**

15 Signs will be limited to the minimum necessary to meet information, warning, and regulatory  
16 needs; and to avoid confusion and visual intrusion. Signs should be planned to provide a  
17 pleasing, uniform appearance. Traffic signs and pavement markings on park roads will be  
18 consistent with the standards contained in the *Manual on Uniform Traffic Control Devices*, as  
19 supplemented by the National Park Service *Sign Manual*. All roadside signs and markings will  
20 conform to good traffic engineering practices. Park signs—especially those that display the NPS  
21 arrowhead symbol—are an important part of the total identity system for the NPS, and must  
22 conform to the standards contained in Director’s Order #52C: Park Signage.

23 *(See Navigation Aids 9.2.5; Signs 9.3.1.1)*

### 24 **9.2.4 Parking Areas**

25 Parking areas and overlooks will be located so as not to unacceptably intrude, by sight, sound, or  
26 other impact, on park resources or values. When parking areas are deemed necessary, they will  
27 be limited to the smallest size appropriate, and be designed to harmoniously accommodate motor  
28 vehicles and other appropriate users. When large parking areas are needed, appropriate plantings  
29 and other design elements will be used to reduce negative visual and environmental impacts.  
30 When overflow parking is provided to meet peak visitation, it should be in areas that have been  
31 stabilized, or are otherwise capable of withstanding the temporary impacts of parking without  
32 causing unacceptable impacts to park resources. Permanent parking areas will not normally be  
33 sized for the peak use day, but rather for the use anticipated on the average weekend day during  
34 the peak season of use.

35 *(See Management of Native Plants and Animals 4.4.2; General 9.1; Transportation Systems and*  
36 *Alternative Transportation 9.2)*

1 **9.2.5 Navigation Aids**

2 Necessary aircraft and water navigation aids will be planned in collaboration with the Federal  
3 Aviation Administration and U. S. Coast Guard, respectively, and will be installed, maintained,  
4 and used in conformance with the standards established by these agencies only if there are no  
5 appropriate alternatives outside park boundaries. Exceptions to the standards may be authorized  
6 when necessary to meet specific park and public safety needs, provided the exceptions are jointly  
7 agreed to by the NPS and the agency having primary jurisdiction.

8 *(See Overflights and Aviation Uses 8.4; Traffic Signs and Markings 9.2.3)*

9 **9.3 Visitor Facilities**

10 While striving for excellence in visitor services, the NPS will limit visitor facility development  
11 to that which is necessary and appropriate. Facilities like gas stations and grocery stores may be  
12 necessary to park use and enjoyment, but it does not necessarily follow that these facilities must  
13 be located inside a park. The NPS will encourage the development of private sector visitor  
14 services in gateway communities to contribute to local economic development, encourage  
15 competition, increase choices for visitors, and minimize the need for in-park facilities. When  
16 visitor facilities are found to be necessary and appropriate within a park, they will be designed,  
17 built, and maintained in accordance with accepted NPS standards for quality, and the NPS  
18 commitment to visitor satisfaction.

19 **9.3.1 Informational and Interpretive Facilities**

20 Informational and interpretive facilities may be provided to assist park visitors in appreciating  
21 and enjoying the park and understanding its significance, provided that the facilities can be  
22 developed without impairing the park's natural or cultural resources.

23 *(See Chapter 7: Interpretation and Education; Accessibility for Persons with Disabilities 9.1.2)*

24 **9.3.1.1 Signs**

25 Signs will be carefully planned and designed to fulfill their important roles of conveying an  
26 appropriate NPS and park image and providing information and orientation to visitors. Each park  
27 should have an approved park-wide sign plan based on Service- wide design criteria, and tailored  
28 to meet individual park needs. Entrance and other key signs will be distinctively designed to  
29 reflect the character of the park, while meeting Service- wide standards for consistency.

30 Signs will be held to the minimum number, size, and wording required to serve their intended  
31 functions, so as to minimally intrude upon the natural and historic settings. They will be placed  
32 where they do not interfere with park visitors' enjoyment and appreciation of park resources.  
33 Roadside information signs are subject to the standards established in the National Park Service  
34 *Sign Manual*. Interpretive signs will be guided by sign and wayside exhibit plans.

1 *(See Signs 6.3.10.4; Traffic Signs and Markings 9.2.3; Navigation Aids 9.2.5. Also see Director's*  
2 *Order #52C: Park Signage)*

### 3 **9.3.1.2 Entrance Stations**

4 Entrance and fee collection stations will be harmonious with the park environment, and should  
5 reflect the architectural character of the park. Entrance and fee collection stations should (1)  
6 reasonably accommodate the average peak season visitor traffic, (2) incorporate best available  
7 technology, and (3) use best management practices to minimize delays—thus reducing vehicle  
8 emissions at the entrance station and enhancing the visitor experience.

### 9 **9.3.1.3 Visitor Centers**

10 When necessary to provide visitor information and interpretive services, visitor centers may be  
11 constructed at locations identified in approved plans. To minimize visual intrusions and impacts  
12 to major park features, visitor centers will generally not be located near such features. Where an  
13 in- park location would create unacceptable environmental impacts, authorization should be  
14 obtained to place a visitor center outside the park.

15 Visitor centers are not substitutes for personal or self- guiding on- site interpretation. They will  
16 be constructed only when it has been determined that indoor media are the most effective means  
17 of communicating major elements of the park story, and that a central public- contact point is  
18 needed.

19 As appropriate, a visitor center may include information services, sales of educational materials  
20 and theme- related items, audiovisual programs, museums, museum collections storage, exhibits,  
21 and other staffed or self- help programs and spaces necessary for a high- quality visitor  
22 experience. Additionally, the need for restrooms, drinking fountains, and other basic visitor  
23 requirements will be considered during the planning and design stage. The size and scope of all  
24 visitor centers **will** be evaluated using the Visitor Center Planning Model or similar tool before  
25 submitting any visitor center project to the Director for approval.

26 *(See Park Management 1.4; Environmental Leadership 1.8; Non- personal Services 7.3.2;*  
27 *Integration of Facilities into the Park Environment 9.1.1.2; Accessibility for Persons with*  
28 *Disabilities 9.1.2; Museum Collections Management Facilities 9.4.2)*

### 29 **9.3.1.4 Amphitheaters**

30 Amphitheaters may be provided in campgrounds and in other locations where formal interpretive  
31 programs are desirable. Campfire circles may be provided in campgrounds to accommodate  
32 evening programs and informal social gatherings. Artificial lighting must be carefully directed  
33 and kept to a minimum, with due regard for natural night sky conditions.

34 *(See Lightscape Management 4.10; Campgrounds 9.3.2.1)*

### 35 **9.3.1.5 Wayside Exhibits**

1 Wayside exhibits may be provided along roads and heavily used walks and trails to interpret  
2 resources on site.

3 *(See Non- personal Services 7.3.2)*

#### 4 **9.3.1.6 Viewing Devices**

5 Viewing devices, such as pedestal binoculars or telescopes, may be provided at appropriate  
6 locations when the superintendent determines that such devices are desirable for the meaningful  
7 interpretation or understanding of park resources. Such devices may be provided by the Service,  
8 or by others under a concession contract or commercial use authorization.

#### 9 **9.3.1.7 Facilities for Arts and Culture**

10 Various cultural events (such as concerts, films, lectures, plays, craft shows, and art exhibits) are  
11 permitted when they will support a park's purposes and objectives. However, permanent  
12 facilities may be built specifically for cultural activities only when all of the following criteria  
13 are met:

- 14 • The permanent facility is required for programs of major importance in conveying the park  
15 story;
- 16 • It would be impossible or impractical to use demountable or temporary facilities;
- 17 • It would be impossible to adaptively use other park facilities;
- 18 • Neither the facility nor its operation would impair cultural or natural resources, or hinder the  
19 use of the park for its intended purposes; and
- 20 • It would not be feasible for others outside the park to provide the facility.

21 *(See Use of Historic Structures 5.3.5.4.7; Special Events 8.6.2)*

#### 22 **9.3.2 Overnight Accommodations and Food Services**

23 Overnight facilities and food services will be restricted to the kinds and levels necessary and  
24 appropriate to achieve each park's purposes. In many cases, overnight accommodations and food  
25 services are not needed within a park. In general, they should be provided only when the private  
26 sector or other public agencies cannot adequately provide them in the park vicinity. However, in-  
27 park facilities or services may be justified when the distance and travel time to accommodations  
28 and services outside the park are too great to permit reasonable use, or when leaving the park to  
29 obtain incidental services would substantially detract from the quality of the visitor experience.  
30 Certain activities, such as backcountry use, may require overnight stays. Types of overnight  
31 accommodations may vary from unimproved backcountry campsites to motel or hotel-type  
32 lodging, as appropriate. Commercial facilities run by concessioners are addressed in greater  
33 detail in chapter 10.

34 *(See Accessibility for Persons with Disabilities 9.1.2; Commercial Visitor Services Planning*  
35 *10.2.2)*

### 1 9.3.2.1 Campgrounds

2 When campgrounds are determined to be necessary, their design will accommodate the  
3 differences between recreation-vehicle camping and tent camping, and will consider cultural  
4 landscapes, terrain, soils, vegetation, wildlife, climate, special needs of users, visual and auditory  
5 privacy, and other relevant factors.

6 The Service will determine the range of amenities and utility hookups that are appropriate to  
7 each campground based on the park's mission, campground location and size, availability of  
8 commercial campgrounds in the area, cost of installing and maintaining the amenities and  
9 utilities, and other considerations. To eliminate the need for generators, electric utilities may be  
10 provided on a limited basis. Shower facilities may be provided where feasible. Modest- sized  
11 play areas for small children are permissible, as are informal areas for field sports associated  
12 with organized group camps. Wood fires in fire rings are generally permissible; however,  
13 whenever it is necessary to restrict such fires at individual campsites because of fire danger, air  
14 pollution, or other hazards, alternatives may be provided or allowed, such as facilities for the use  
15 of charcoal or other fuels, or central cook sheds. When a need exists, sanitary dump stations will  
16 be provided in or near campgrounds that accommodate recreation vehicles.

17 When necessary for basic safety requirements, pathways and the exteriors of buildings and  
18 structures may be lighted. Such lighting will be energy efficient and shielded as much as possible  
19 so that visitors have the opportunity to experience the natural darkness and night skies.

20 Campgrounds intended to accommodate large recreation vehicles or buses will be located only  
21 where existing roads can safely accommodate such vehicles and the resulting increased traffic  
22 load.

23 Campgrounds will not exceed 250 sites unless a larger number of sites has been approved by the  
24 Director.

25 When desirable for purposes of management, tent camping may be accommodated in separate  
26 campgrounds, or in separately designated areas within campgrounds. Provision may also be  
27 made for accommodating organized groups in separate campgrounds, or in separately designated  
28 areas.

29 Boating campgrounds may be provided in parks with waters used for recreational boating. The  
30 need for campgrounds—and their sizes, locations, and numbers—will be determined by (1) the  
31 type of water body (for example, river, lake, reservoir, saltwater); (2) the availability and  
32 resiliency of potential campsites; (3) the feasibility of providing and maintaining docking,  
33 beaching, mooring, camping, and sanitary facilities; and (4) the potential for unacceptable  
34 impacts on park resources or values.

35 *(See Soundscape Management 4.9; Lightscape Management 4.10; Recreational Fees 8.2.6.1;*  
36 *National Park Reservation Service 8.2.6.2; Collecting Natural Products 8.8; Water Supply*  
37 *Systems 9.1.5.1; Wastewater Treatment Systems 9.1.5.2; Concession Facilities 10.2.6. Also see*

1 *Director's Order #47: Soundscape Preservation and Noise Management; Director's Order #83:*  
2 *Public Health)*

### 3 **9.3.2.2 Backcountry Campsites**

4 Backcountry and wilderness campsites may be permitted, but only within the acceptable limits of  
5 use determined by the park's wilderness management plan, resource management plan, or other  
6 pertinent planning document.

7 *(See Wilderness Use Management 6.4; Backcountry Use 8.2.2.4)*

### 8 **9.3.2.3 Hostels and Shelters**

9 Hostels are low- cost, supervised accommodations that encourage and facilitate the energy-  
10 efficient, non- motorized enjoyment of parks and their surrounding regions by individuals and  
11 families. Such facilities, along with hostel-like accommodations such as huts and shelters, will be  
12 considered in the planning process if overnight use is determined to be an appropriate use of the  
13 park, particularly as a means of encouraging and facilitating the use of trails and backcountry  
14 areas. The Service will cooperate with other agencies, non-profit organizations, park  
15 concessioners, and others to plan and develop hostels, where appropriate. If a decision is reached  
16 to develop a hostel accommodation, it will be managed by others under the provisions of  
17 concession policies and procedures.

18 Hostels will, at a minimum, contain sheltered overnight accommodations and sanitary facilities,  
19 and they will usually contain cooking, eating, and recreation spaces. Hostels may be used for  
20 other park programs, such as environmental education or interpretation. Although non-  
21 motorized access to hostels is emphasized, motorized transportation may also be available.

22 *(See Facility Planning and Design 9.1.1; Chapter 10: Commercial Visitor Services)*

### 23 **9.3.3 Comfort Stations**

24 Comfort facilities will have waste disposal systems that meet Public Health Service standards.  
25 Levels of use will determine the size and nature of the utility systems provided. Low- water use  
26 or waterless (oil and composting) toilets will be considered in locations where there are water-  
27 supply and wastewater- disposal problems. Chemical toilets in portable enclosures may be used  
28 for temporary purposes when necessary. Vault toilets and composting toilets that meet public  
29 health standards may be used where development or expansion of utilities may not be practical  
30 or cost effective. Pit privies that meet public health standards may suffice in areas of infrequent  
31 use and when utility services are not readily available.

32 *(See General Policy 6.4.1; Backcountry Use 8.2.2.4; Accessibility for Persons with Disabilities*  
33 *8.2.4; Water Supply Systems 9.1.5.1; Wastewater Treatment Systems 9.1.5.2; Campgrounds*  
34 *9.3.2.1. Also see Director's Order #83: Public Health)*

### 35 **9.3.4 Other Visitor Facilities**

1 Other visitor facilities may be provided when necessary for visitor enjoyment of the area, and  
2 when consistent with the protection of park values. Visitor facilities determined to be detrimental  
3 to park resources or values will not be permitted.

#### 4 **9.3.4.1 Picnic and Other Day Use Areas**

5 Picnic areas and other day use areas to be used for specific purposes (such as play areas) may be  
6 provided on a limited basis as appropriate to meet existing visitor needs.

#### 7 **9.3.4.2 Facilities for Water Recreation**

8 Boating facilities (such as access points, courtesy docks, boat ramps, floating sewage pump-out  
9 stations, navigational aids, and marinas), breakwaters, and fish cleaners may be provided as  
10 appropriate for the safe enjoyment by visitors of water recreation resources, when (1) they are  
11 consistent with the purposes for which the park was established, and (2) there is no possibility  
12 that adequate private facilities will be developed. Facilities must be carefully sited and designed  
13 to avoid unacceptable adverse effects on aquatic and riparian habitats, and to minimize conflicts  
14 between boaters and other visitors who enjoy use of the park. A decision to develop water- based  
15 facilities must take into account not only the primary impacts (such as noise, air, and water  
16 pollution) of the development, but also the secondary impacts (including cumulative effects over  
17 time) that recreational use associated with the development may have on park resources and  
18 visitor enjoyment.

19 *(See Park Management 1.4; Soundscape Management 4.9; Visitor Use 8.2; River Use 8.2.2.3;*  
20 *Fishing 8.2.2.5; Campgrounds 9.3.2.1; Water Trails 9.2.2.5. Also see Director's Order #47:*  
21 *Soundscape Preservation and Noise Management)*

#### 22 **9.3.4.3 Skiing Facilities**

23 The Park Service will not permit new downhill skiing facilities or associated structures in any  
24 unit of the national park system. Downhill skiing is an activity that requires extensive  
25 development, with resulting significant environmental impacts, and it should only be provided  
26 outside park areas. When such facilities have been provided based on previous policy, their use  
27 may continue, unless the development and use have caused, or may cause, impairment of park  
28 resources or values. Any proposal to eliminate, or change the capacity of, existing facilities will  
29 be accomplished through the Park Service planning process, and will involve public participation  
30 and an environmental assessment of impacts.

31 *(See Decision- making Requirements to Identify and Avoid Impairments 1.4.7; Recreational*  
32 *Activities 8.2.2)*

#### 33 **9.3.5 Advertising**

34 Commercial notices or advertisements will generally not be displayed, posted, or distributed on  
35 the federally owned or federally controlled land, water, or airspace of a park. A superintendent  
36 may permit advertising only if the notice or advertisement is for goods, services, or facilities

1 available within the park, and if such notices and advertisements are found to be desirable and  
2 necessary for the convenience and guidance of the public. Acceptable forms of advertising will  
3 be addressed, as necessary, in concession contracts and cooperating association agreements.

4 Billboard advertising will in no case be permitted within a park and, in general, will be  
5 discouraged on approach roads outside of parks when it would adversely affect a park's scenic  
6 values.

7 NPS policy allows "donor recognition," which occurs when the NPS publicly thanks an  
8 individual, corporation, or some other entity for their gift or service to the NPS. **Such**  
9 **recognition must be consistent with the provisions of Director's Order #21.**

10 In accordance with Part 470 of the DOI manual, the Service will not use paid advertising in any  
11 publication in connection with its programs and activities, except where special legal  
12 requirements and authority exist. If a superintendent believes paid advertising is necessary  
13 because of the significant benefits it affords in enhancing public participation, prior approval  
14 must be obtained from the WASO Office of Public Affairs.

15 *(See Cooperating Associations 7.6.2; Concession Contracting 10.2.3. Also see Director's Order*  
16 *#21: Donations and Fundraising, 36 CFR 5.1)*

## 17 **9.4 Management Facilities**

18 Where authorized by Congress, management facilities will be located outside park boundaries  
19 whenever the management functions being served can be adequately supported from such a  
20 location. When management facilities must be located inside the park, they will be located away  
21 from primary resources and features of the park, and sited so as to not adversely affect park  
22 resources or values, or detract from the visitor experience. Historic properties will be used to the  
23 maximum extent practicable, provided that the use will not affect their significance.

24 Modular, pre-cut, or prefabricated structures may be used for management facilities, including  
25 administrative offices, employee housing, and maintenance structures, when products meeting  
26 design requirements are available. Standard plans will be modified to reflect regional and park  
27 design themes, and harmonize with the natural surroundings; preserve the natural and cultural  
28 environments; provide for resource conservation; provide for energy efficiency or the use of  
29 renewable energy sources; limit chemical emissions; and foster education about sustainable  
30 design.

31 *(See Park Management 1.4; Environmental Leadership 1.8; Use of Historic Structures 5.3.5.4.7;*  
32 *Accessibility for Persons with Disabilities 8.2.4; Facility Planning and Design 9.1.1;*  
33 *Accessibility for Persons with Disabilities 9.1.2. Also see Director's Orders #89: Space*  
34 *Management; and #90: Value Analysis)*

### 35 **9.4.1 Administrative Offices**

1 The location of administrative offices will be determined by conditions specific to each park,  
2 including impacts on park resources, availability and adequacy of leasable space outside the  
3 park, relationship to adjacent communities, convenience to visitors, weather, energy  
4 consumption, comparative costs, commuting distance for employees, and management  
5 effectiveness.

6 *(See Facility Planning and Design 9.1.1; Energy Management 9.1.7)*

#### 7 **9.4.2 Museum Collections Management Facilities**

8 Park curatorial facilities should be adapted to the needs of each park. They may share space in  
9 visitor centers or administrative office buildings, or be housed in completely separate buildings.  
10 Incorporation with maintenance facilities should be avoided because of the heightened danger of  
11 fire, chemical spills, and similar accidents. Curatorial facilities will meet each collection's  
12 special requirements for security, fire suppression, and environmental controls.

13 The operation of environmental control systems to meet the temperature, relative humidity,  
14 particulate, and, as necessary, pollutant control specifications for museum collections are  
15 typically more energy intensive than those for structures with staff and offices. In order to ensure  
16 energy efficiency and the correct performance of the systems to protect the resource, the thermal  
17 performance of the building envelope and the efficiency of the systems must be addressed in  
18 facility planning and design. Prior to planning a collections management facility, the park, in  
19 consultation with subject-matter specialists, must complete a value analysis that evaluates  
20 various options for addressing the collections management needs of the park, including on-site  
21 and off-site locations **and joint facilities with other NPS units and entities outside the Park**  
22 **Service.**

23 *(See Museum Collections 5.3.5.5; Fire Detection, Suppression, and Post-fire Rehabilitation and*  
24 *Protection 5.3.1.2; Environmental Monitoring and Control 5.3.1.4. Also see Director's Order*  
25 *#24: NPS Museum Collections Management)*

#### 26 **9.4.3 Employee Housing**

27 The NPS will generally rely on the private sector to provide housing for NPS employees. If  
28 reasonable price and quality housing is not available in the private sector, the Service will  
29 provide only the number of housing units necessary to support the NPS mission.

30 Occupancy is permitted or required to provide for timely response to park protection needs, to  
31 ensure reasonable deterrence to prevent threats to resources, and to protect the health and safety  
32 of visitors and employees. Such prevention or response services will determine acceptable and  
33 appropriate locations for employee housing that is provided for the benefit of the government in  
34 meeting the NPS mission.

#### 35 **9.4.3.1 Housing Management Plan**

1 A Housing Management Plan will be prepared and updated every 3 to 5 years to determine the  
2 necessary number of housing units in a park. Park superintendents are accountable to their  
3 regional directors for employee housing in their parks. Regional directors are responsible for  
4 approval of Park Housing Management Plans and ensuring the consistent application of  
5 Servicewide housing policy.

#### 6 **9.4.3.2 Eligible Residents**

7 Park housing will be provided for persons who are essential to the management and operation of  
8 the park. These may include not only NPS employees, but also concession employees, volunteers  
9 in the parks, Student Conservation Association volunteers, researchers, essential cooperators (for  
10 example, schoolteachers, health personnel, contractors, state or county employees), and  
11 employees of another federal agency.

#### 12 **9.4.3.3 Historic Structures**

13 The use of historic structures for housing is encouraged when NPS managers determine that this  
14 use contributes to the preservation of these structures, and after feasible cost-effective  
15 alternatives have been considered.

16 *(See Use of Historic Structures 5.3.5.4.7; Adaptive Use 9.1.1.4)*

#### 17 **9.4.3.4 Design and Construction**

18 Because of location, use, and other unique factors, special design concerns must be considered  
19 for housing constructed in parks. Housing must be designed to be as much a part of the natural or  
20 cultural setting as possible, yet it must be well-built, functional, energy efficient, and cost  
21 effective. The design of park housing will minimize impacts on park resources and values,  
22 comply with the standards for quality design, and consider regional design and construction  
23 influences. Value analysis principles will be applied in all NPS housing construction projects.  
24 Design costs will be kept to a minimum by using designs from the NPS Standard Design Catalog  
25 and a cost model.

26 *(See Facility Planning and Design 9.1.1. Also see Director's Orders #36: Housing Management,*  
27 *and #90: Value Analysis)*

#### 28 **9.4.4 Maintenance Structures**

29 Maintenance structures will be consistent in design, scale, texture, and details with other park  
30 facilities. Optimally, they will be screened or located in areas remote from public use. Wherever  
31 feasible, NPS and concessioner maintenance facilities will be adjacent and integrated in design,  
32 to facilitate operations and to reduce impacts on park resources.

#### 33 **9.4.5 Miscellaneous Management Facilities**

1 When installations such as landing sites and airstrips, security structures, protection devices, fire  
 2 towers, weather monitors, research stations, communication towers, and pump houses are  
 3 necessary, they will be located and designed to minimize their impact on resources and their  
 4 intrusion on the visitor experience. Whenever possible and practicable, such installations will be  
 5 located within developed park areas or outside park boundaries. Totally utilitarian facilities, such  
 6 as maintenance storage yards, sewage lagoons, and solid waste disposal sites—when they  
 7 absolutely must be developed inside a park—will be sited so as to avoid adverse impacts to  
 8 resources, provide visual screening, and protect the visitor experience. Alternative energy  
 9 applications and sustainable wastewater treatment facilities, such as aquaculture ponds, wetlands,  
 10 and rootzone beds, may be located in more visible areas when they are important to interpretive  
 11 and educational objectives.

12 *(See Environmental Leadership 1.8; Studies and Collections 4.2; General Policy 6.3.1; Airports*  
 13 *and Landing Sites 8.4.8; Facility Planning and Design 9.1.1; Water Supply Systems 9.1.5.1;*  
 14 *Wastewater Treatment Systems 9.1.5.2; Waste Management 9.1.6.1; Maintenance Structures*  
 15 *9.4.4)*

## 16 **9.5 Dams and Reservoirs**

17 Dams and reservoirs will not be constructed in parks. The National Park Service will seek to  
 18 deactivate existing structures unless they contribute to the cultural, natural, or recreational  
 19 resource bases of the area, or are a necessary part of a park’s water supply system.

20 All dams will be subject to annual safety inspections. Each park with a dam or reservoir will  
 21 prepare an emergency action plan. The emergency action plan will also address potential hazards  
 22 posed by dams outside the park and beyond the Service’s control. The National Park Service  
 23 inventory of dams will be used to record all NPS and non-NPS dams and reservoirs, and any  
 24 other type of stream flow control structures affecting units of the national park system, including  
 25 those that are proposed or have been deactivated.

26 *(See Water Quality 4.6.3; Floodplains 4.6.4; Wetlands 4.6.5; Watershed and Stream Processes*  
 27 *4.6.6; Emergency Preparedness and Emergency Operations 8.2.5.2; Water Supply Systems*  
 28 *9.1.5.1; Wastewater Treatment Systems 9.1.5.2. Also see Director’s Order #40: Dams and*  
 29 *Appurtenant Works)*

## 30 **9.6 Commemorative Works and Plaques**

### 31 **9.6.1 General**

32 For the purpose of this section, the term “commemorative work” means any statue, monument,  
 33 sculpture, memorial, plaque, or other structure or landscape feature, including a garden or  
 34 memorial grove, designed to perpetuate in a permanent manner the memory of a person, group,  
 35 event, or other significant element of history. It also includes the naming of park structures or  
 36 other features—including features within the interior of buildings. Within the District of  
 37 Columbia and its environs, the Commemorative Works Act prohibits the establishment of  
 38 commemorative works unless specifically authorized by Act of Congress. Outside of the District

1 of Columbia and its environs, commemorative works will not be established unless authorized by  
2 Congress or approved by the Director (36 CFR 2.62). The consultation process required by  
3 section 106 of NHPA must be completed before the Director will make a decision to approve a  
4 commemorative work.

5 To be permanently commemorated in a national park is a high honor, affording a degree of  
6 recognition that implies national importance. At the same time, the excessive or inappropriate  
7 use of commemorative works—especially commemorative naming—diminishes its value as a  
8 tool for recognizing people or events that are truly noteworthy, and has the potential for diverting  
9 attention from the important resources and values which park visitors need to learn about.  
10 Therefore, the National Park Service will discourage and curtail the use and proliferation of  
11 commemorative works except when:

- 12 • Congress has specifically authorized their placement; or
- 13 • There is compelling justification for the recognition, and the commemorative work is the best  
14 way to express the association between the park and the person, group, event, or other subject  
15 being commemorated.

16 In general, compelling justification for a commemorative work will not be considered unless:

- 17 • The association between the park and the person, group, or event is of exceptional  
18 importance; and
- 19 • In cases where a person or event is proposed for commemoration, at least five years have  
20 elapsed since the death of the person (or the last member of a group), or at least 25 years  
21 have elapsed since the event. (Within the District of Columbia and its environs, refer to the  
22 Commemorative Works Act for more specific requirements.)

23 Simply having worked in a park, or having made a monetary or other type of donation to a park,  
24 does not necessarily meet the test of “compelling justification.” In these and similar cases other  
25 forms of recognition should be pursued.

26 With regard to the naming of park structures, names that meet the criteria listed above may be  
27 approved by the Director. Names that do not meet those criteria will require legislative action.  
28 All donor recognition must be consistent with Director’s Order #21: Donations and Fundraising.  
29 In accordance with Director’s Order #21, the naming of rooms, features, or park facilities will  
30 not be used to recognize monetary or in-kind donations to a park or to the NPS.

### 31 **9.6.2 Interpretive Works That Commemorate**

32 The primary function of some commemorative works—most often in the form of a plaque  
33 presented by an outside organization—is to describe, explain, or otherwise attest to the  
34 significance of a park’s resources. These devices are not always the most appropriate medium for  
35 their intended purpose, and their permanent installation may not be in the best long-term interests  
36 of the park. Therefore, permanent installations of this nature will not be allowed unless it can be  
37 clearly demonstrated that the work will substantially increase visitors’ appreciation of the

1 significance of park resources or values, and do so more effectively than other interpretive  
2 media.

3 With regard to Civil War parks, new commemorative works will not be approved, except where  
4 specifically authorized by legislation. However, consideration may be given to proposals that  
5 would commemorate groups that were not allowed to be recognized during the commemorative  
6 period.

7 In those parks where there is legislative authorization to erect commemorative works,  
8 superintendents will prepare a plan to control their size, location, materials, and other factors  
9 necessary to protect the overall integrity of the park. The plan may include a requirement for an  
10 endowment to cover the costs of maintaining the commemorative work.

### 11 **9.6.3 Approval of Commemorative Works**

12 Before being approved, a determination must be made, based on consultation with qualified  
13 professionals that the proposed commemorative work will:

- 14 • Be designed and sited to avoid disturbance of natural and cultural resources and values;
- 15 • Be located in surroundings relevant to its subject;
- 16 • Be constructed of materials suitable to and compatible with the local environment;
- 17 • Meet NPS design and maintenance standards;
- 18 • Not encroach on any other pre-existing work, or be esthetically intrusive;
- 19 • Not interfere significantly with open space and existing public use;
- 20 • Not divert attention from a park's primary interpretive theme; and
- 21 • Not be affixed to the historic fabric of a structure.

22 The Director may order the removal or modification of commemorative works that were  
23 installed without proper authorization, or that are inconsistent with the policies in this section.  
24 Temporary forms of in-park recognition, and permanent forms that will not be constructed or  
25 installed within park boundaries, do not require the Director's approval.

26 The naming of geographic features is subject to approval by the U. S. Board on Geographic  
27 Names. NPS proposals for naming geographic features will follow the procedures described in  
28 Director's Order #63: Geographic Names.

29 *(Also see Director's Order #67: Copyright and Trademarks; U. S. Board on Geographic Names*  
30 *"Principles, Policies, and Procedures: Domestic Geographic Names")*

### 31 **9.6.4 Pre-existing Commemorative Works**

32 Many commemorative works have existed in the parks long enough to qualify as historic  
33 features. A key aspect of their historical interest is that they reflect the knowledge, attitudes, and  
34 tastes of the persons who designed and placed them. These works and their inscriptions will not  
35 be altered, relocated, obscured, or removed, even when they are deemed inaccurate or

1 incompatible with prevailing present-day values. Any exceptions require specific approval by the  
2 Director.

3 **9.6.5 Donated Commemorative Works**

4 While commemorative works and other forms of in-park permanent recognition will not be used  
5 to recognize monetary contributions or other donations to a park or the Service, there may be  
6 occasions when an authorized or approved commemorative work will be offered or provided by  
7 a private donor. Names of donors will be discouraged from appearing on commemorative works.  
8 If they do appear, donor names will be conspicuously subordinate to the subjects  
9 commemorated. Donations of commemorative works should include sufficient funds to provide  
10 for their installation, and an endowment for their permanent care.  
11 *(See Non-personal Services 7.3.2; Cemeteries and Burials 8.6.10. Also see Director's Order*  
12 *#64: Commemorative Works and Plaques)*

13 **9.6.6 Commemorative Works in National Cemeteries**

14 Regulations governing commemorative works associated with national cemeteries are found in  
15 36 CFR Part 12; and Director's Order #61: National Cemeteries.