



United States Department of the Interior

NATIONAL PARK SERVICE

1849 C Street, N.W.

Washington, D.C. 20240

IN REPLY REFER TO:

DIRECTOR'S ORDER #77-2: FLOODPLAIN MANAGEMENT

Approved: 
Director

Effective Date: SEP - 8 2003

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This Director's Order, together with its accompanying Procedural Manual 77-2 replaces the National Park Service floodplain management guidance provided in Special Directive 93-4, "Floodplain Management."

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1.0 Background and Purpose

Executive Order 11988, "Floodplain Management" (May 28, 1980), was issued "to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." The order requires Federal agencies to develop agency specific guidance, provide leadership and take action to:

- Reduce the risk of flood loss;
- Minimize the impact of floods on human safety, health and welfare; and
- Restore and preserve the natural and beneficial values served by floodplains.

2.0 Authority to Issue This Director's Order

The authority to issue this Director's Order is found in the National Park Service Organic Act (16 U.S.C. 1 through 4), and delegations of authority contained in Part 245 of the Department of the Interior Manual.

3.0 Scope and Applicability

This Director's Order applies to all NPS proposed actions, including the direct and indirect support of floodplain development, that could adversely affect the natural resources and functions of floodplains, including coastal floodplains, or increase flood risks. This Director's Order also applies to existing actions when they are the subjects of regularly occurring updates of NPS planning documents.

This Director's Order does not apply to historic or archaeological structures, sites, or artifacts whose location is integral to their significance or to certain actions as specifically identified in Procedural Manual 77-2.

As is the case with all components of the NPS directives system, this order is intended only to improve the internal management of the NPS and it is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its departments, agencies, instrumentalities or entities, its officers or employees, or any other person.

4.0 Floodplain Policy

In compliance with Executive Order 11988, it is National Park Service policy to preserve floodplain values and minimize potentially hazardous conditions associated with flooding. NPS floodplain policy is articulated in more detail in Section 4.6.4 of Management Policies, which states:

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

Specifically, the Service will:

- Protect and preserve the natural resources and functions of floodplains;
- Avoid the long- and short-term environmental effects associated with the occupancy and modification of floodplains; and
- Avoid direct and indirect support of floodplain development and actions that could adversely affect the natural resources and functions of floodplains or increase flood risks.

- Restore, when practicable, natural floodplain values previously affected by land use activities within floodplains.

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

- Prepare and approve a Statement of Findings (SOF), in accordance with procedures described in Procedural Manual 77-2: Floodplain Management; and
- Take all reasonable actions to minimize the impact to the natural resources of floodplains; and
- Use non-structural measures as much as practicable to reduce hazards to human life and property; and
- Ensure that structures and facilities are designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR Part 60).

Other important floodplain-related policies are found in Section 9.1.1.6 of *Management Policies 2001* (Siting Facilities to Avoid Natural Hazards), which states:

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

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

Requirements for development in floodplains and wetlands are contained in Executive Order 11988 (Floodplain Management); Executive Order 11990 (Protection of Wetlands); Director's Order #77-1; this Director's Order (#77-2); and other NPS guidance documents.

5.0 Procedures

5.1 Classification. To implement the NPS floodplain policy, proposed actions will be

classified as fitting into one of three classes. The action defines the applicable regulatory floodplain. A Statement of Findings is prepared if the action falls within the defined regulatory floodplain:

- **Class I** includes the location or construction of administrative, residential, warehouse and maintenance buildings, non-excepted parking lots or other man-made features, which by their nature entice or require individuals to occupy the site, are prone to flood damage, or result in impacts to natural floodplain values. Actions in this class are subject to the floodplain policies and procedures if they lie within the 100-year regulatory floodplain (the Base Floodplain).
- **Class II** includes “critical actions”—those activities for which even a slight chance of flooding would be too great. Examples of critical actions include schools, hospitals, fuel storage facilities, irreplaceable records, museums, and storage of archeological artifacts. Actions in this class are subject to the floodplain policies and procedures if they lie within the 500-year regulatory floodplain.
- **Class III** includes all Class I or Class II actions that are located in High Hazard Areas, including coastal high hazard areas and areas subject to flash flooding. Actions in this class are subject to the floodplain policies and procedures if they lie within the Extreme Flood regulatory floodplain.

Action Class	Regulatory Floodplain	Chance of Flooding during One Year	Chance of Flooding during Fifty Years
Class I	100-year (Base Floodplain)	1%	39%
Class II	500-year	0.2%	10%
Class III	Extreme Flood	0%	0%

If a proposed action is found to be in an applicable regulatory floodplain and relocating the action to a non-floodplain site is considered not to be a viable alternative, then flood conditions and associated hazards must be quantified as a basis for management decision-making and a formal Statement of Findings must be prepared.

5.2 Statement of Findings. The SOF will be attached to the *Finding of No Significant Impact* for any environmental assessment (EA) or the *Record of Decision* for any environmental impact statement (EIS) prepared for an action that will impact a regulatory floodplain. The draft SOF may be combined as a separately identifiable document with the NEPA document and signed concurrently with the FONSI or ROD. In summary, the SOF will: (1) describe the rationale for selection of a floodplain site, (2) disclose the amount of risk associated with the chosen site, and (3) explain flood mitigation plans.

5.3 Approval Process. An approved Floodplain Statement of Findings must include signatures of the Superintendent, the Chief of the Water Resources Division (or other qualified, professional NPS hydrologist), and the Regional Director.

The Superintendent recommends approval of the SOF and, as such, endorses the proposed/existing actions and mitigation techniques described in the SOF. The signature of the Chief, Water Resources Division (or other qualified, professional NPS hydrologist), indicates that the information in the SOF analysis is technically adequate and consistent with NPS protocols and standards as presented in Procedural Manual 77-2. The Regional Director is responsible for approval of the SOF, indicating agreement with the proposed/existing actions described in the SOF and ensuring that compliance requirements and safety-related factors have been sufficiently considered. At the discretion of the Regional Director, an NPS Compliance Officer and/or Safety Officer(s) may surname the SOF prior to approval (signature) by the Regional Director. In the case where an SOF is prepared in association with an EIS Record of Decision (ROD) and someone other than the Regional Director signs the ROD, the SOF is first signed by the Regional Director and then by the ROD official.

6.0 Content of Statement of Findings

Each SOF will include the following topics:

- A. Introduction
 - Brief description of the proposed action.
 - Brief site description.
 - General characterization of the nature of flooding and associated floodplain processes in the area.
- B. Justification for Use of the Floodplain
 - Description of why the proposed action must be located in floodplain.
 - Investigation of alternative sites.
- C. Description of Site-Specific Flood Risk
 - Recurrence interval of flooding at the site.
 - Hydraulics of flooding at the site (depths, velocities).
 - Time required for flooding to occur (amount of warning possible).
 - Opportunity for evacuation of site in the event of flooding.
 - Geomorphic considerations (erosion, sediment deposition, channel adjustments).
- D. A description of how the action will be designed or modified to minimize (1) harm to floodplain natural resources and (2) risk to life and property to the applicable regulatory floodplain level. (In the event that risk to property or human life cannot be eliminated in high hazard areas, a clear statement to that effect must be included in the SOF.)
- E. Summary

More detailed guidance can be found in Procedural Manual 77-2.

7.0 Responsibilities

- **The Director** is responsible for ensuring NPS compliance with E.O. 11988, in accordance with provisions of 520 DM 1. In performing this duty, the Director approves NPS policies and directives for complying with the order.
- **The Deputy Directors and Associate Directors** are responsible for general supervision of the divisions and offices under their jurisdictions to ensure compliance with E.O. 11988, as outlined in this Director's Order and Procedural Manual 77-2.
- **The Associate Director, Natural Resource Stewardship and Science**, is responsible for (1) issuing NPS procedures for implementing this Director's Order (Procedural Manual 77-2) and (2) revising relevant portions of NPS natural resources management and NEPA procedures to ensure compliance with E.O. 11988, as outlined in this Director's Order and Procedural Manual 77-2.
- **The Associate Director, Park Planning, Facilities, and Lands**, is responsible for revising NPS planning procedures as necessary to satisfy the requirements of E.O. 11988 as outlined in this Director's Order and Procedural Manual 77-2.
- **The Superintendents** acquire relevant technical information; oversee the planning/NEPA process; identify preferred alternatives; and oversee preparation of Statements of Findings, utilizing the floodplain technical information developed during the planning process. Superintendents recommend approval of the Statement of Findings to the Regional Director.
- **The Chief, Water Resources Division** (or other qualified, professional NPS hydrologist), certifies the "Technical Adequacy and Service-wide Consistency" of the Statement of Findings, assuring both technical adequacy of floodplain analyses and Service-wide consistency in implementation of this Director's Order and the Procedural Manual.
- **The Regional Environmental Compliance Officer** reviews SOF to ensure compliance with all pertinent laws, regulations, and other guidance.
- **The Regional Safety Officer** reviews structural and non-structural mitigation measures.
- **The Regional Directors** are responsible for ensuring compliance with E.O. 11988 within their respective regions, as outlined in this Director's Order and implementation procedures. Where appropriate, Regional Directors may have mitigation procedures outlined in the SOF reviewed and surmised by an NPS safety official. Regional Directors are responsible for final approval of Statements of Findings after recommendation by Superintendents, and certification of technical adequacy and Service-wide consistency.

-----End of Director's Order-----