

Executive Order Floodplain Management

By the authority vested in me by the Constitution and statutes of the United States of America, and as President of the United States of America, in furtherance of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), the National Flood Insurance Act of 1968, as amended (42 U.S.C. 4001 *et seq.*), and the Flood Disaster Protection Act of 1973 (Public Law 93-234, 87 Stat. 975), the Coastal Barrier Resources Act of 1982 (Public Law 97-348), and the Coastal Barrier Improvement Act of 1990 (Public Law 101-591; 104 Stat. 2931), I hereby order as follows:

Section 1- Policy

Floods have caused a greater loss of life and property and have devastated more families and communities in the United States than all other natural hazards. Despite the expenditure of billions of tax dollars trying to manage floodwaters and guide wise use of floodplains, flood damages continue to increase and every year billions are spent in response to flood disasters. In addition, natural floodplains contain numerous inherent values that are of great importance to the Nation. The federal government must therefore strengthen its commitment to reducing the loss of life and property caused by floods and to protecting and restoring the natural resources and functions of floodplains. While the responsibility for implementing cost-effective and environmentally-sound floodplain management is shared among federal, state, tribal, and local governments, each federal agency must provide leadership and take action, when appropriate, to reduce the risk of flood losses.

Section 2 - Purpose and Applicability

(a) **Purpose.** To direct federal agencies to provide leadership and take action to:

- (1) Reduce the loss of life and property caused by floods.
- (2) Protect and restore the *natural resources and functions of floodplains*. (The definitions of italicized words or phrases are found in Section 3.)

- (3) Avoid the short and long term *adverse effects* of occupying and modifying *floodplains*.
- (4) Avoid direct or indirect Federal support to development in or adversely affecting a *floodplain*, whenever there is a *practicable* alternative.
- (5) Promote and implement cost-effective and environmentally sound *floodplain management*.
- (6) Consider the effect that climate change and anticipated future conditions might have on the extent and frequency of flooding.
- (7) Use scientifically credible flood information in Federal decision-making.

(b) Covered Actions. This Order applies when Federal agencies:

- (1) Acquire an interest in, manage, or dispose of lands, structures and *facilities*
- (2) Construct or substantially improve Federal *facilities*
- (3) Finance or otherwise assist in the construction or improvement of *facilities*
- (4) *Develop* or evaluate water resource and land use plans
- (5) Regulate, *permit, or* license water resource and land use activities.

Section 3 – Definitions. As used in this Order:

(a) *Adverse effects* means harm or detriment to the natural resources and functions of *floodplains* and increased risk of damage or loss of life or property from flooding. "Effects" include:

- (1) Direct effects, which are caused by the *Covered Action* and occur at the same time and place.
- (2) Indirect effects, which are caused by the *covered action* and are later in time or farther removed in distance, but are still reasonably foreseeable and likely.

(3) Cumulative effects, which result from the incremental effect of the *covered action* when added to other past, present, and reasonably foreseeable future actions regardless of what *agency* (Federal or non-Federal) or person undertakes such other actions.

(b) *Agency* means "Executive agency" as defined in Section 105 of Title 5 of the United States Code, the military departments as defined in Section 102 of that title, and the U.S. Postal Service.

(c) *Covered Actions* mean those actions described in section 2(b).

(d) *Critical action* means any *covered action* for which even a slight chance of flooding would be too great. This can include, but is not limited to, *covered actions* or *facilities* critical to the health and safety of the public and the environment, such as hospitals and nursing homes, emergency operations centers (particularly police, fire, and rescue), vital data storage centers, power generation and other utilities (including related infrastructure such as principal points of utility systems) and any that produce, use or store toxic pollutants as defined under the Clean Water Act and other Federal statutes.

(e) *Facilities* means any man-made or man-placed items including, but not limited to buildings or other structures, roads and bridges, filling, utilities, storage of equipment and materials,

(f) *Flood risk management measures or systems* means any single or combination of *nonstructural measures* and *structural measures*, changes, or adjustments that will reduce flood damages.

(a) *Floodplain* means for other than critical actions, the area subject to a 1 percent or greater annual chance of flooding (the "100-year" floodplain). For critical actions, *floodplain* means that area subject to a 0.2 percent or greater annual chance of flooding (the "500-year" floodplain).

(b) *Floodplain management* means a continuous process of making decisions about whether and how floodplain lands and water are to be used.

(c) *Floodway* means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 1 percent annual chance flood without cumulatively increasing the water surface elevation more than a designated height.

- (d) *Natural resources and functions of floodplains* means those attributes commonly found within floodplain systems such as flood storage and conveyance, groundwater recharge, water quality, fish and wildlife habitats, wetlands, coastal dunes, mangroves, ecosystem integrity, and socio-economic resources such as open space, farm land, and recreation opportunities.
- (e) *Nonstructural measures* means techniques that modify susceptibility to flooding by means other than *structural measures*, such as development and redevelopment policies, planning, and regulations; relocation and acquisition; open space and land management; wetland restoration; and elevation and floodproofing.
- (f) *Practicable* means capable of being done within existing constraints. The test of what is *practicable* depends upon the situation and includes consideration of many factors, such as environment, cost, technology, or legal authorities.
- (g) *Residual risk* means the risk that remains after flood risk reduction measures have been established. Risk remains because of the possibility that structural failures and/or flood or hurricane intensity will surpass the implemented measures.
- (h) *Structural measures* means flood risk management techniques or measures that modify flood flows by building structures to manage the flow of water. Examples of structural projects include: levees and floodwalls, reservoirs and diversions, seawalls and revetments, channels and drainage modifications, and dams.
- (i) *System-wide* means having to do with a coastal area, *watershed*, or area within a *watershed*, that has common or interrelated basin hydrology, hydraulics, and ecosystem elements.
- (j) *Watershed* means an area of land that drains water, sediment, and dissolved materials to a common water body such as a river, lake or ocean.

Section 4 - Decision making process for Covered actions

The decision making process applies to *covered actions* in *floodplains* or actions that cause *adverse effects* on the *floodplain*. When preparing documents for compliance with the National Environmental Policy Act (NEPA), agencies can incorporate compliance with this Order, when

relevant to the proposed Federal action

(a) Identify floodplains

Before taking a *covered action*, an *agency* must determine whether that action will occur in or adversely affect a *floodplain* or is a *critical action*. The *agency* shall use Federal Emergency Management Agency's (FEMA) *floodplain* information, including maps and Flood Insurance Studies, to make its determination. If the *Agency* determines that it needs additional information or if FEMA's information is not available for the area or is insufficiently detailed, the *Agency* should look elsewhere for scientifically credible information, or develop the information itself.

If the *covered action* is not in or does not adversely affect a *floodplain*, the *covered action* is not subject to the remaining requirements of this Order.

(b) Identify and evaluate practicable alternatives.

If an *agency* determines that its *covered action* is in a *floodplain* or adversely affects a *floodplain*, the *agency* must fully evaluate *practicable* alternatives that include:

(1) Using other sites outside the *floodplain* that would not adversely affect a *floodplain*.

(2) Taking other actions that serve essentially the same purpose as the proposed *covered action* but that are not in a *floodplain* or would not adversely affect a *floodplain*.

(3) Taking no action.

If the *Agency* revises its *covered action* to avoid any action in or that would adversely affect a *floodplain*, the *covered action* is not subject to the remaining requirements of this Order.

(c) Identify and mitigate effects

If after evaluation of *practicable* alternatives, the *Agency* proposes to take *covered actions* in or that adversely affects a *floodplain*, the *agency* shall:

(1) Give the public a chance to comment on the proposed *covered action* in accordance with Section 8(a) (1)-(3).

(2) After considering public comments received, make a formal finding that there is no *practicable* alternative that is not in or affecting a *floodplain*.

(3) Identify the effects of the *Covered Action* and then, to the extent *Practicable*:

a. Design or modify the proposed *covered action* to avoid or minimize the potential for loss of life from flooding and potential *adverse effects* to the natural resources and functions of the *floodplain*, and protect *facilities* from potential flood damage, following regulations and procedures issued or amended under Section 9 of this Order.

b. For critical actions, if locating outside the 0.2 percent annual chance flood hazard area is not *practicable*, protect these critical actions so they can withstand the 0.2 percent annual chance flood or otherwise minimize possible damages from such a flood. If the .2 percent annual chance flood data is not available, an estimate of the 0.2 percent annual chance flood must be developed in coordination with FEMA.

c. Avoid placing fill in the *floodplain* to achieve flood protection to the extent practicable.

d. Avoid placing fill or other obstructions in the *floodway* and coastal high hazard areas.

e. Ensure that the proposed action considers and has dealt with the *residual risks* that exist behind levees and other flood risk reduction structures.

f. Design or modify the proposed *covered action* to be consistent with Federal, State, tribal, and local:

(i) Flood risk reduction and *floodplain management* plans, standards, criteria, regulations or procedures that are more restrictive than those in the *Agency's* regulations and procedures developed under Section 9

(ii) Environmental protection and restoration plans, regulations and laws.

g. Consider, after completion of a-f above, if the proposed action is still feasible.

h. Prepare and circulate a notice as required in Section 6(b) (7).

(d) Process requirements for disposing of Federal property.

When property in a floodplain is proposed for lease, easement, right-of-way, or disposal to non-Federal public or private entities, *agencies* must make full use of their legal authorities to:

(1) List in the document transferring the property those uses that are restricted and requirements under applicable Federal, State, or local floodplain management regulations and procedures.

(2) Attach appropriate restrictions to the uses of properties by the grantee or purchaser and any successors.

(3) Consider retaining these properties in Federal ownership.

(e) Process requirements for Federal financial involvement.

In addition to the requirements of the order and the responsibilities agencies have under Sections 202 and 205 of the Federal Disaster Protection Act of 1973 as amended (42 USC 4106 and 4128 and Section 1364 of the Flood Insurance Act of 1968 as amended (42 USC 4104a), agencies which guarantee, approve, regulate or insure any financial transaction shall inform private parties of the hazards of locating structures or facilities in the floodplain before completing the transaction by:

(1) Indicating if the property is in a floodway or coastal high hazard area; and

(2) Indicating that the property may be subject to Federal, States or local floodplain management regulations.

(f) Process requirements for planning and issuance of Federal licenses, permits loans, and grants.

Agencies must also take floodplain management into account by:

(1) When developing or evaluating water or land use plans, ensuring that the use of land and water resources is appropriate to the degree of hazard involved

(2) Providing guidance to applicants to help them evaluate the adverse effects of their proposed actions in or adversely affecting a floodplain before they apply for Federal licenses, permits, loans, or grants.

Section 5 - Managing existing Federal facilities within floodplains

(a) Within four years of the issuance of this Order, each *agency* shall develop and maintain a list of all its owned or leased facilities within the *floodplain*.

(b) Within 6 years of this Order, each *agency* shall expand the list to include the following:

(1) A description of each facility's vulnerability to flooding or its contribution to increasing flood damages. If the *facility* is a critical facility, describe its vulnerability to a 0.2% annual chance flood event.

(2) A description of the public health, safety, or other benefits the facility provides.

(3) An assessment of whether the degree of flood risk to the Federal *facility*, public health and safety, and potential impact on the environment merit undertaking mitigation measures. Some of the measures to consider are relocating or altering (e.g., elevating, changing operations, improving design) the *facility* or vulnerable uses within the *facility*, or relocating services the *facility* provides.

(c) When repairing, improving, or rehabilitating Federal *facilities* in the *floodplain* that are not substantial improvements or repair of substantial damage, consider undertaking mitigation measures to minimize the flood risk to the *facility*.

Section 6 - Promote nonstructural approaches

In addition to the requirements in Section 2, agencies shall:

(a) When acting on proposals for planning, developing, constructing, managing, repairing, restoring, and evaluating flood risk reduction measures or systems, use, as much as *practicable*, *nonstructural measures*, design modifications, and enhancements that would:

(1) Reduce the risk of future flood damages without increasing damages upstream or downstream or adjacent to the covered action.

- (2) Lower long-term cost to the taxpayers.
- (3) Protect, restore, and/or improve environmental conditions, including wetlands, riparian buffers, beach dune systems, fish and wildlife habitat, species diversity, and water quality.
- (b) Address flood damage reduction on a system-wide or watershed basis, using the concepts of integrated water resources management.
- (c) Encourage State, tribal, and local communities to get involved and assume responsibility for flood response and floodplain management. Specifically, to the extent *practicable*:
 - (1) Coordinate with State, tribal, and local governments.
 - (2) Follow existing community adaptation, floodplain management and hazard mitigation plans, when they meet or exceed Federal requirements.
 - (3) Encourage development of community adaptation, floodplain management and hazard mitigation plans as part of flood response proposals.
 - (4) Encourage States and tribes to take responsibility for non-Federal levees.
 - (5) Work with State, tribal and local governments to coordinate scientific activities and develop information to assist in response and restoration efforts.
 - (6) In accordance with existing authorities, make levee and other flood risk reduction structure repair and associated recovery and restoration funds available to States, tribes, and local governments for use in implementing nonstructural damage mitigation plans.
- (d) Where authorized, institute State, tribal, and local cost-sharing, and make flood damage reduction measures or systems funds available to States and tribal governments for implementing nonstructural flood loss reduction measures or flood hazard mitigation plans that are consistent with this order.

Section 7- Sharing scientific information

- (a) Use consistent and current science.

Agencies shall use consistent and current scientific principles and methods for effective *floodplain* identification and management. They shall use those principles and methods to gain knowledge and understanding of the processes that create floodplains, of the natural and beneficial resources of floodplains, and of the consequences of human interaction.

(b) Coordinate with others.

Agencies shall coordinate scientific activities, share existing databases, and coordinate the development of information relevant to flood impact prediction, flood response, recovery and floodplain management planning with other Federal, State, tribal, and local agencies or other institutions, as much as is *practicable*. This will avoid duplication of data and model development and improve local and State floodplain management strategies, flood recovery and vulnerability reduction schemes and ensure the standardization, compatibility and transferability of such data among Federal agencies.

Section 8 – Public Involvement

(a) Opportunity to Comment.

Before taking any covered action in or adversely affecting a floodplain, agencies shall:

- (1) Provide the affected public with an opportunity to review and comment on your plans and alternatives.
- (2) Coordinate early in the process with affected Federal, State, tribal, and local agencies with jurisdiction by law or special expertise in environmental, coastal zone, and floodplain management matters.
- (3) Provide the affected public with an opportunity to review and comment on any revised plans, designs, and alternatives under consideration.
- (4) Ensure that the head of the agency (or his/her designee) fully considers all public comments and all practicable alternatives before making a determination to proceed with any proposed covered action that will be in or adversely affect a floodplain.

Public involvement under this order may be accomplished in conjunction with public involvement performed under NEPA.

(b) Findings and public notice.

If, after giving the public an opportunity to comment, the head of an agency (or his/her designee) finds that there is no practicable alternative outside the floodplain or that there is no practicable alternative that does not adversely affect the floodplain, document compliance with this order by:

- (1) Describing the proposed covered action and its adverse effects on the floodplain;
- (2) Explaining why locating the proposed covered action within the floodplain or affecting the floodplain is the only practicable alternative.
- (3) Describing the other potential sites and actions considered, including their locations, and state why each was rejected
- (4) Stating, for the proposed covered action, what the agency will do to avoid, minimize, or mitigate the adverse effects to the floodplain and/or minimize the risk of future flood damage.
- (5) Stating how the proposed covered action is consistent with Federal, State, tribal, or local flood reduction projects and floodplain management plans, requirements, and laws or explain how and why the proposed covered action is inconsistent.
- (6) Summarizing how the agency proposed to protect, preserve, and restore the natural resources and functions of the floodplain affected by the covered action.
- (7) Making this information available to the affected public and Federal, State, tribal, and local agencies with jurisdiction by law or special expertise in environmental and floodplain management matters.
- (8) Allowing for an adequate comment period before you take any covered action.

This public involvement documentation can be incorporated into documentation prepared by the agency for compliance with the National Environmental Policy Act.

(c) Promoting public awareness of flood hazards.

- (1) If Federal property used by the general public has suffered flood damage or is located in

an identified flood hazard area, agencies shall show the past and probable flood heights on the property, and other places where appropriate in order to enhance public awareness of and knowledge about flood hazards.

(2) Where the information is available, responsible agencies shall make publicly available the current estimate level of protection provided by Federally constructed or financed flood damage reduction measures or systems. This information should assist public institutions as well as individuals manage floodplains and watersheds to reduce unacceptable risks to facilities and population centers.

Section 9 - Regulations and reporting requirements

(a) As allowed by law, agencies shall amend their existing regulations and procedures within one year of the date of this Order. Current regulations will remain in place until amended or replaced.

(1) Agency regulations and procedures should, as much as practicable, incorporate by reference existing regulations, such as those of the Council on Environmental Quality (CEQ).

(2) Agency regulations should reflect the standards, criteria and regulations or procedures issued under the National Flood Insurance Program and the Unified National Program for Floodplain Management and the requirements of this Order.

(3) Agency regulations and procedures must also, at a minimum, require that the construction of Federal facilities and federally assisted structures comply with the standards issued under the National Flood Insurance Program and the requirements of this Order. Agencies should consider going beyond these minimum standards for those types of actions where higher levels of protection are necessary and appropriate or for actions not covered by the National Flood Insurance Program. Agency regulations may differ from the National Flood Insurance Program only to the extent that the standards of the National Flood Insurance Program are clearly inappropriate for a given type of structure or facility.

(4) Agencies must address flood hazards and natural resources and functions of floodplains in the regulations and operating procedures for the licenses, permits, loans, or grant programs for water resource and land use activities.

(5) Agency policies and regulations should avoid creating incentives for floodplain development. Agencies should evaluate their policies and procedures for approving, regulating,

funding, assisting, permitting, or licensing activities to ensure that they are not encouraging the use of structural measures that would make it easier to develop floodplain areas.

(b) Agencies should consult with FEMA and CEQ before writing their regulations and procedures.

(c) Within one year of the issuance of this order, each agency must submit a report to OMB and CEQ indicating the status of regulation and procedure revisions. Every four years thereafter, each agency must evaluate the effectiveness of its regulations and procedures and report the results of the evaluation to OMB and CEQ.

Section 10 - Administrative Information

(a) How this Order affects the earlier Floodplain Management Order.

This Order replaces Executive Order No. 11988, issued on May 24, 1977. All guidance prepared under that Order will remain in effect until modified under this new Order.

(b) How this order relates to Section 104(g) of the Housing and Community Development Act of 1974 and similar provisions.

If Section 104(g) of the Housing and Community Development Act of 1974, as amended (88 Stat. 640, 42 U.S.C. 5304(h)) or a similar provision of law applies to a covered action, and an entity other than a federal agency has assumed responsibility for federal NEPA compliance, that entity may also assume responsibility for complying with this Order.

(c) Asking for new budget items to cover covered actions in or adversely affecting a floodplain.

Whenever agencies requests from OMB new authorizations or appropriations for particular covered actions in or adversely affecting a floodplain, agencies must report whether the proposed covered action would comply with this Order.

(d) Limitations

(1) Order does not create private cause of action.

This order is intended only to improve the internal management of the Executive branch. It does not create any right, benefit, or trust responsibility, substantive or procedural, enforceable in law or equity by a party against the United States, its agencies, its officers, or any other person.

(2) Classified Information

Nothing in this Order affects limitations on the dissemination of classified information pursuant to law, regulation, or Executive order.

(3) Geographical Reach

This order only applies to covered actions undertaken in any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the United States has jurisdiction. Agencies may follow the procedures of this Order for covered actions undertaken outside the areas listed above.

(4) Emergency Assistance

This Order does not apply to assistance agencies provide for emergency work essential to save lives and protect property and public health and safety, performed under PL 84-99 (33 U.S.C. 701n) or Sections 402 and 403 of the Robert T. Stafford Disaster Relief Emergency Assistance Act, as amended (PL 93-288). However, whenever practicable, agencies shall make this assistance consistent with this Order.