

MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS AND DISTRICT
COMMANDS

SUBJECT: Policy Guidance Letter (PGL) No. 52, Flood Plain Management Plans

1. **Purpose.** This guidance letter provides policy on Section 202 (c), Flood Plain Management Plans, of the Water Resources Development Act (WRDA) of 1996. The Act language is provided for your information as enclosure 1.
2. **Background.** Section 202 (c) amends Section 402 of WRDA 86 to provide that before the construction of any project for local flood damage reduction or hurricane or storm damage reduction that involves assistance from the Secretary of the Army, the non-Federal interest must agree to participate in and comply with applicable Federal flood plain management and flood insurance programs. It also amends this provision to require non-Federal interests to prepare a flood plain management plan designed to reduce the impacts of future flood events in the project area within one year of signing a project cooperation agreement and to implement the plan not later than one year after completion of construction of the project.
3. **Applicability.** This guidance applies to any flood damage reduction or hurricane or storm damage reduction project or separable element thereof, including projects developed under Section 103, Section 205 and Section 208 of the Continuing Authorities Program, for which the Secretary and the non-Federal interest enter into a project cooperation agreement after 12 October 1996. Guidance for the preparation of flood plain management plans (FPMP) by non-Federal sponsors are provided in enclosure 2.
4. **Policy.** It is our policy to promote prudent flood plain management at the non-Federal level by encouraging a non-Federal sponsor to develop its FPMP during the preparation of the feasibility study. A non-Federal sponsor's FPMP should implement measures, practices, and policies to reduce loss of life, injuries, damages to property and facilities, public expenditures, and other adverse impacts associated with flooding, and to preserve and enhance natural flood plain values and should also address measures which will help preserve levels of protection provided by the Corps flood damage reduction or hurricane or storm damage reduction project.

5. Procedures.

a. Notification: As with other project requirements, the potential non-Federal interest should be notified prior to the initiation of the reconnaissance study phase of the requirement to prepare and implement a FPMP pursuant to Section 202 (c) of WRDA 96.

b. Preparation of FPMP by Non-Federal Interests during the Feasibility Study: To ensure compatibility with the Corps project, the non-Federal interest should be encouraged to prepare its plan concurrently with the preparation of the feasibility study. This will ensure that the FPMP preparation and feasibility study plan formulation process are compatible. In fact, much of the effort and information needed to support the preparation of a flood plain management plan by the non-Federal sponsor can be developed as part of the feasibility study in accordance with Principles and Guidelines and existing Corps planning guidance. This guidance requires that the inherent characteristics of the flood plain be described and determined. These characteristics include, but are not limited to: a description of the flood hazard; a description and delineation of the floodway and natural storage areas; a description of the natural and beneficial values including potential recreation areas, open space, wetlands and wildlife preserves; and, an identification of other physical attributes. In addition, the hydrologic and hydraulic data, and flood damage data, as well as other technical data, developed as part of the feasibility study are also crucial information necessary for the preparation of a FPMP.

During the formulation of a project for flood damage reduction or hurricane and storm damage reduction, both structural and non-structural alternatives or a mix of alternatives must be considered. As the Federal project evolves during the planning process and the “with project” condition is defined, those measures deemed outside of the scope of the Federal project can be identified as potential components of the non-Federal FPMP which must be designed to reduce the impacts of future flood events in the project area. This FPMP can include such things as land use regulations, redevelopment and relocation policies, disaster preparedness, flood proofing, levees, flood forecasting and warning systems, flood plain information, channelization, flood plain acquisition and easements, on-site detention of flood waters by protection of natural storage areas, and the preservation and restoration of the natural resources and functions of the flood plain. Further, the concurrent preparation of the FPMP by the non-Federal sponsor during the feasibility study provides the sponsor an opportunity to use the public involvement process to obtain public input for the development of its FPMP. Information that is developed as part of the feasibility study will be cost shared 50/50 and must be described in the Project Study Plan.

c. Preparation of FPMP by Non-Federal Interests after Feasibility Study is Completed: A non-Federal sponsor may elect not to pursue development of a FPMP while the feasibility study is ongoing. Any information that was developed as part of the study may be given to the local sponsor for its use. However, any additional assistance from the Corps after the feasibility study is completed will be provided at 100% non-Federal cost.

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d. FEMA Accepted FPMP's. The guidance detailed in enclosure 2 closely follows the procedures for preparation and implementation of a FPMP for credit under FEMA's Community Rating System (CRS) of the National Flood Insurance Program (NFIP). A FPMP which has been prepared and adopted by the non-Federal interest, and has been accepted by FEMA as meeting the latest Flood Plain Management Planning credit criteria under the CRS of the NFIP may exceed the basic FEMA requirements and may comply with the requirements of 202 (c). However, the non-Federal interests should insure that the FEMA accepted FPMP does comply with the guidance in enclosure 2, is valid given the impact of the proposed project and includes consideration to preservation and enhancement of natural flood plain values. If the FEMA accepted FPMP does not meet these criteria, additional planning will be necessary.

e. Adoption of FPMP. The requirement for preparation of an FPMP can be considered met after the appropriate governing body (or bodies) has formally adopted a plan to reduce the impacts of future flood events.

f. Implementation of FPMP. Implementation of the FPMP is a local responsibility and is not included in the project cost.

g. Agreements. The requirement for the preparation and implementation of a FPMP pursuant to Section 202 (c) of WRDA 96 must be highlighted in the "Federal and State Laws" Article of the Feasibility Cost Sharing Agreement, the PED Agreement and the Project Cooperation Agreement signed by the non-Federal sponsor.

6. **Implementation.** This guidance letter is effective immediately.

FOR THE COMMANDER:

Encls

/s/

RUSSELL L. FUHRMAN
Major General, USA
Director of Civil Works

SECTION 202(c) OF WRDA 1996
FLOOD PLAIN MANAGEMENT PLANS

c) Floodplain Management Plans.

(1) In general. --Section 402 of such Act (33 U.S.C. 701b-12; 100 Stat. 4133) is amended to read as follows:

SEC. 402. FLOODPLAIN MANAGEMENT REQUIREMENTS.

a) Compliance With Floodplain Management and Insurance Programs. --Before construction of any project for local flood protection, or any project for hurricane or storm damage reduction, that involves Federal assistance from the Secretary, the non-Federal interest shall agree to participate in and comply with applicable Federal floodplain management and flood insurance programs.

b) Flood Plain Management Plans. --Within 1 year after the date of signing a project cooperation agreement for construction of a project to which subsection a) applies, the non-Federal interest shall prepare a flood plain management plan designed to reduce the impacts of future flood events in the project area. Such plan shall be implemented by the non-Federal interest not later than 1 year after completion of construction of the project.

c) Guidelines. --

(1) In general. --Within 6 months after the date of the enactment of this subsection, the Secretary shall develop guidelines for preparation of floodplain management plans by non-Federal interests under subsection b). Such guidelines shall address potential measures, practices, and policies to reduce loss of life, injuries, damages to property and facilities, public expenditures, and other adverse impacts associated with flooding and to preserve and enhance natural floodplain values.

(2) Limitation on statutory construction. --Nothing on this subsection shall be construed to confer any regulatory authority upon the Secretary or the Director of the Federal Emergency Management Agency.

d) Technical Support. --The Secretary may provide technical support to a non-Federal interest for a project to which subsection a) applies for the development and implementation of plans prepared under subsection b).

(2) Applicability. --The amendment made by paragraph (1) shall apply to any project or separable element thereof with respect to which the Secretary and the non-Federal interest have not entered into a project cooperation agreement on or before the date of the enactment of this Act.

GUIDANCE ON THE DEVELOPMENT OF FLOOD PLAIN MANAGEMENT PLANS

1. This document provides guidance on the development of flood plain management plans in accordance with Section 202 (c) of WRDA 1996. Included in this document are (1) general concepts describing the goals and objectives of flood plain management plans and strategies and tools for achieving those goals and objectives; (2) specific guidance describing the requirements for the non-Federal interest to comply with Section 202 (c); and (3) references providing additional resources to assist the non-Federal interest in the preparation of the flood plain management plan.

2. In general, a Flood Plain Management Plan (FPMP) attempts to lessen the damaging effects of floods and/or storm surges, maintain and enhance natural floodplain values, and make effective use of water and related land resources within the flood plain. A FPMP attempts to balance benefits obtainable from use of the flood plain with potential losses arising from such use. The comprehensive nature of such a plan stresses consideration of the full range of structural and non-structural measures potentially useful in achieving its objectives. The concepts contained in this guidance were developed to closely follow the 1994 Unified National Program for Floodplain Management and to ensure compatibility with the National Flood Insurance Program's Community Rating System.

3. Specifically, Section 202 (c) of WRDA 96 requires that the non-Federal interest shall prepare a flood plain management plan designed to reduce the impacts of future flooding in the project area. The FPMP should be based on post-project flood plain conditions. The primary focus of the FPMP should be to address potential measures, practices and policies which will reduce the impacts of future residual flooding, help preserve levels of protection provided by the Corps project and preserve and enhance natural flood plain values. In addition, the FPMP should address the risk of future flood damages to structures within the post-project flood plain and internal drainage issues related to Corps levee/floodwall projects. Since actions within the flood plain upstream and downstream from the project area can affect the performance of the Corps project, the FPMP developed by the non-Federal sponsor should not be limited to addressing measures solely within the immediate project boundaries.

4. An effective FPMP should result in continuing consideration of the flood hazard in the use of land and water resources in the flood plain and provide benefits to all government levels and the public, including:

- a. Reducing loss of life, injury and hardship due to floods;
- b. Reducing flood damages;
- c. Reducing public expenditures for construction of additional flood damage

Enclosure 2

reduction measures, emergency response actions, and post-disaster assistance; and,

d. Preserving and enhancing natural flood plain values for fish and wildlife habitat along with their attendant benefits of groundwater recharge, moderation of floods, water quality improvement, and reduced erosion and sedimentation.

5. The following process should be followed and documented to ensure that development and implementation of the Flood Plain Management Plan (FPMP) involves the appropriate stakeholders and addresses the appropriate needs of the local community.

a. There should be an identified non-Federal planner, or a planning committee established by the non-Federal interest, responsible for overall accomplishment of the FPMP.

b. There should be active public involvement throughout the FPMP development process. This should include coordination with other local, regional, state, and federal agencies and non-governmental groups.

c. Problems associated with the flood and/or storm surge hazard should be assessed. Other problems and needs such as water quality, water supply, recreation, and environmental concerns, should also be addressed during this process.

d. Based on the problems and needs identified through the Corps study and the above process, goals should be set and an action plan developed to meet those goals.

e. The action plan is a blueprint for implementation of the FPMP. The FPMP must be implemented not later than one year after completion of construction of the Federal project.

6. The four main strategies and their related tools which should be considered, and which may be included as elements of the FPMP are:

a. modify human susceptibility to flood damage and disruption, with

1) land use regulations, such as a regulatory floodway designation which is more restrictive than NFIP regulatory floodway criteria of 1-foot rise in the 100-year flood elevation.

2) public development & redevelopment policies, such as “no net increase in runoff” requirements for new development within its jurisdiction and/or first floor elevation requirements for new development within the post-project flood plain that exceed the NFIP requirements.

3) flood warning systems, including detailed response plans for the post-project flood plain which provides adequate warning and response to prevent loss of life and reduce flood damages to contents of structures.

4) flood damage reduction measures such as floodproofing of structures in the

post-project flood plain and/or permanent relocation of structures from the post-project flood plain.

- b. modify the impact of flooding, with
 - 1) information and education
 - 2) flood insurance
 - 3) tax adjustments
 - 4) emergency relief
 - 5) post-flood recovery

- c. preserve and restore the natural resources and functions of flood plains, such as
 - 1) wetlands protection or restoration
 - 2) erosion and sediment control
 - 3) water quality enhancement
 - 4) enhancement of recreation and educational opportunities
 - 5) preservation of cultural resources

- d. modify flooding, with
 - 1) dams and reservoirs
 - 2) levees, dikes, and floodwalls
 - 3) channel alterations, diversions, and bypasses
 - 4) bridge modifications
 - 5) pumping stations
 - 6) onsite detention

7. There is no “standard” FPMP. In addition, in most cases, no single strategy will be sufficient; rather, a combination of strategies and tools will most likely be needed to further reduce the residual risks to acceptable levels. By selecting the best mix of these strategies, decision makers can tailor the FPMP to the characteristics of a specific flood plain and to the needs of its constituents. The combination must be based on what is available, practicable, affordable, and likely to be successful for the flood plain in question, keeping in mind the dual purposes of flood plain management: reducing loss of life, disruption, and damages; and preserving and restoring natural resources and functions.

8. The FPMP should contain (1) documentation of the process used to develop the FPMP, including records of meetings and public involvement activities, (2) a listing of the goals and objectives, (3) a listing of the strategies and tools considered and reasons for inclusion or rejection, and (4) a detailed action plan for implementation of the activities selected for inclusion in the FPMP. Also, as a minimum, the FPMP prepared and implemented by the non-Federal interests must include the following activities:

- a. The non-Federal interest must maintain and provide public access to the most current flood hazard maps and related information.

b. On an annual basis, the non-Federal interest must provide information to owners and residents of flood prone property within its jurisdiction concerning the residual flood risk and availability of flood insurance.

9. REFERENCES.

a. The following is a list of publications which provide additional information on the concepts of flood plain management and development of flood plain management plans. In addition to the publications listed below, many states have published guidebooks for community flood plain management and flood damage mitigation.

(1) *Addressing Your Community's Flood Problems, A Guide for Elected Officials*, Association of State Floodplain Managers, 1997.

(2) *Using Multi-Objective Management to Reduce Flood Losses in Your Watershed*, Association of State Floodplain Managers, 1996.

(3) *Community Rating System Coordinator's Manual, Activity 510 (Flood Plain Management Planning)*, Federal Emergency Management Agency, 1996.

(4) *Protecting Floodplain Resources - A Guidebook for Communities*, Federal Interagency Floodplain Management Task Force, September 1995.

(5) *A Unified National Program for Floodplain Management*, Federal Interagency Floodplain Management Task Force, 1994.

(6) *Measures to Reduce Flood Damage*, U.S. Army Corps of Engineers Hydrologic Engineering Center, March 1990.

(7) *Flood Plain Management Handbook*, United States Water Resources Council, September 1981 (U.S. Government Printing Office).

(8) *A Process For Community Flood Plain Management*, U.S. Department of the Interior, April 1980.