

APPENDIX 5A  
FEBRUARY 2006

**Guidelines for Coordinating Development of Highways in  
Floodplains with the Federal Emergency Management  
Agency (FEMA) and the Local Communities**

Purpose - These guidelines provide recommended procedures for coordinating the development of highway projects located in floodplains under the jurisdiction of the National Flood Insurance Program with FEMA and the local communities. These procedures are intended to streamline and expedite the project development process while meeting the requirements of the Federal agencies involved with the National Flood Insurance Program (NFIP).

Policy - The local community has the responsibility for enforcing the national flood insurance program; accordingly, the SHA deals directly with the local community and, through them, coordinates with FEMA. The SHA limits direct consultation with FEMA to special situations, as described in these guidelines, where such consultation will serve to expedite resolution of administrative or technical issues.

SHA Actions - The SHA will undertake the following actions on all projects located within floodplains.

1. Review applicable NFIP maps and ordinances to determine:
  - whether the floodplain is under the jurisdiction of the NFIP
  - whether a regulatory floodway has been established and the type of floodplain mapping:
    - Flood Hazard Boundary Map (FHBM)
    - Flood Boundary and Floodway Map (FBFM)
    - Flood Insurance Rate Map (FIRM)
2. Determine the status of the local community's participation in the NFIP
3. Conduct SHA design hydrologic and hydraulic studies as necessary:
  - to determine appropriate values of the base (100-year) flood for the floodplain (SHA normally accepts FEMA's flood values for use in FEMA models).
  - to develop water surface profiles for existing and proposed conditions as per WRA or SHA criteria independent of FEMA

modeling.

- to evaluate the anticipated changes to the floodplain due to the proposed highway project and any resulting increased flood waters
  - to determine the need for and extent of additional hydraulic studies necessary to indicate compliance with the standards of the National Flood Insurance Program.
4. Advise the local community of the study results. It is the responsibility of the local community to inform FEMA of the SHA's proposed actions. The SHA's findings and actions will generally fall into one of the categories depicted in Table 1 below.
  5. At the request of the local community, send a copy of the SHA hydrologic/hydraulic study to FEMA for technical review at the same time it is submitted to the local community.

TABLE 1  
SUMMARY OF SHA FINDINGS AND ACTIONS REGARDING HIGHWAYS IN  
FLOODPLAINS UNDER THE JURISDICTION OF THE NFIP

Floodplain Designation	Total Rise in the Elevation of the Water Surface for the Base Flood	SHA Action (See Notes)
Regulatory Floodway	No increase	1, 2
	Some increase	2, 3
FHBM, or FIRM with no Regulatory Floodway	Less than 1.0 Foot	2, 4
	Greater than 1.0 Foot	2, 5

Notes:

1. Send study results and highway/bridge plans to the local community for their approval and use in making map revisions.

2. Provide for concurrent review of proposed work with FEMA and the local community. Document study results and local community approval in environmental documents and Federal/State permit applications; send copies of these documents and applications to FEMA and the local community.
3. Revise regulatory floodway, notify affected property owners and/or take other actions as necessary to be consistent with the NFIP; submit to local community for approval and for any necessary zoning and map changes:
  - where profile rise remains within surcharge limits, revision may be accomplished by change in the table of water surface elevations
  - where profile rise exceeds surcharge limits, revision will normally necessitate changes to floodway boundaries and/or compensation to impacted parties
4. Notify local community that total rise in water surface is less than 1.0 foot; request approval of proposed action.
5. Notify local community that total rise in water surface elevation is greater than 1.0 foot; request approval of proposed action; notify property owners.

SHA actions described in notes 1, 3, and 5 above will normally require the local community to coordinate with FEMA regarding the proposed changes.

SHA Consultation with FEMA - Under some circumstances, it may be desirable for the SHA to consult directly with FEMA regarding floodplain issues. The purpose of the special consultation process is to expedite and simplify the technical coordination with respect to the highway design. This process of concurrent review should always be followed when the SHA project affects a regulatory floodway. However, the formal approval process is still handled through the local community.

The following conditions are representative of special situations where direct consultation with FEMA may be initiated:

- to discuss and resolve technical issues regarding SHA's hydrologic and hydraulic studies, such as errors or inaccuracies in the original FEMA models.

- to discuss and resolve administrative issues about the local community's participation in the NFIP.
- to discuss and resolve issues regarding highway projects that have a significant impact on flood risks in an NFIP community. (i.e., changes to the floodway.)

## FEMA FORMS

FEMA has developed various forms to document the effect of a proposed SHA project within a flood plain in the National Flood Insurance Program and to apply for revision to existing flood plain mapping, when appropriate. The MT-1 forms serve to submit a conditional letter of map revision. This is done after completion of the hydraulic studies, but before construction is initiated. The MT-2 forms serve to document the completion of the project. They consist of the background information to go with the letter of map revision

FEMA has developed numerous other forms to documents special conditions affecting NFIP projects. Access to all FEMA forms can be obtained from the FEMA web site or from Structure H&H.

FEMA's Internet site is <http://www.fema.gov> -

The following general guidance from FEMA is presented below in regard to the use of their forms.

### **CONDITIONAL LETTERS OF MAP REVISION AND LETTERS OF MAP REVISION**

#### **GENERAL**

In 1968, the U.S. Congress passed the National Flood Insurance Act, which created the National Flood Insurance Program (NFIP). The NFIP was designed to reduce future flood losses through local floodplain management and to provide protection for property owners against potential losses through flood insurance.

As part of the agreement for making flood insurance available in a community, the NFIP requires the participating community to adopt floodplain management ordinances containing certain minimum requirements intended to reduce future flood losses. The NFIP regulations for floodplain management are the minimum criteria a community must adopt for participation in the NFIP. The community is responsible for approving all proposed floodplain development and for ensuring that permits required by Federal or State law have been received. State and community officials, based on knowledge of local conditions and in the interest of

safety, may set higher standards for construction or may limit development in floodplain areas. If the State or Community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

The community is also responsible for submitting data to the Federal Emergency Management Agency (FEMA) reflecting revised flood hazard information so that NFIP maps can be revised as appropriate. This will allow risk premium rates and floodplain management requirements to be based on current data.

Submissions to FEMA for revisions to effective Flood Insurance Studies (FISs), Flood Insurance Rate Maps (FIRMs), or Flood Boundary Floodway Maps (FBFMs) by individual and community requesters will require the signing of application forms. These forms will provide FEMA with assurance that all pertinent data relating to the revision are included in the submittal. They will also ensure that: (a) the data and methodology are based on current conditions; (b) qualified professionals have assembled data and performed all necessary computations; and (c) all individuals and organizations affected by proposed changes are aware of the changes and will have an opportunity to comment on them.

If the submission involves revisions to multiple flooding sources, then separate forms should be completed for each flooding source.

NFIP regulations can be accessed at [http://www.access.gpo.gov/nara/cfr/waisidx\\_02/44cfrv1\\_02.html](http://www.access.gpo.gov/nara/cfr/waisidx_02/44cfrv1_02.html) or can be obtained by calling FEMA's Map Assistance Center at 1-877-FEMA MAP (1-877-336-2627). FEMA's Internet site at [http://www.fema.gov/fhm/frm\\_form.shtm](http://www.fema.gov/fhm/frm_form.shtm) provides access to the forms and latest fees and revision procedures. FEMA is preparing online tutorials to assist users of the NFIP maps. The tutorials for revisions to the NFIP maps are currently being prepared and will be available soon. Other online tutorials are available at [http://www.fema.gov/fhm/ot\\_main.shtm](http://www.fema.gov/fhm/ot_main.shtm).