



## **Use Of Flood Insurance Study (FIS) Data As Available Data**

Floodplain Management Bulletin 1-98 provides guidance on the use of FEMA draft or preliminary Flood Insurance Study data as "available data" for regulating floodplain development. The bulletin includes:

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### **Introduction**

When areas have been designated as special flood hazard areas on the community's Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) and no Base Flood Elevations (BFEs) or an identified floodway have been developed, communities are required to apply the provisions of 44 Code of Federal Regulations 60.3(b)(4). Subparagraph 60.3(b)(4) requires that communities:

***Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source... [44 CFR 60.3(b)(4)]***

Data obtained are to be used by communities as criteria for requiring that new construction and substantial improvements have their lowest floors elevated to or above the BFE (non-residential structures can also be floodproofed to or above the BFE) and for prohibiting any encroachments in a floodway that would result in any increase in flood levels during occurrence of the base flood discharge. The data obtained should be used as long as they reasonably reflect flooding conditions expected during the base flood, are not known to be scientifically or technically incorrect, and represent the best data available. Data from a draft or preliminary Flood Insurance Study (FIS) constitute available data under 44 CFR 60.3(b)(4). This bulletin provides guidance on the use of FEMA draft or preliminary FIS data as available data for regulating floodplain development.



## Background

Flood Insurance Studies (FIS) use detailed hydrologic and hydraulic analyses to model the 1% annual chance flood event, determine BFEs, and designate floodways and risk zones (Zones AE, A1-30, AH, AO, VE, and V1-30). The flood hazard data are portrayed in tabular fashion in the FIS narrative and graphically as flood profiles that are attached to the narrative. They are portrayed planimetrically on the FIRM. Over 10,000 communities have now been provided detailed FISs and issued FIRMs that include BFEs for Zones AE, A1-30, AH, AO, VE, and V1-30.

A draft FIS can be prepared by a study contractor to FEMA under 44 CFR Part 66 or by appellants under 44 CFR Part 65 for the purpose of establishing or revising BFE and floodway data. FEMA reviews and modifies, as appropriate, the draft FIS to ensure it complies with established NFIP criteria. Once FEMA has reviewed and approved the draft FIS, FEMA releases the information to the public as a Preliminary FIS and FIRM for review and comment during a statutory 90-day appeal period in accordance with 44 CFR Part 67. Until such time as the 90-day appeal period is completed and a notice of final flood elevation determination [Letter of Final Determination (LFD)] has been provided, the BFE and floodway data in the FIS are considered preliminary and subject to change.

Due to the cost of developing detailed flood hazard data, not all floodplains can be studied using detailed methodologies. A primary factor FEMA uses in its system for prioritizing floodplain studies or restudies with BFEs and floodway data is whether the floodplains of the flooding sources are currently or are projected to be subject to development pressure. In NFIP communities where there are few existing buildings in the floodplain and minimal development pressure, FEMA does not prepare a detailed FIS. These communities are converted to the Regular Program with a FIRM in which all of the special flood hazard areas are designated Zone A without BFEs using approximate methodologies. Most NFIP communities will have FIRMs that include a combination of special flood hazard areas that have been studied in detail with BFEs and floodway data and special flood hazard areas that have been studied using approximate methods which have been designated Zone A.

## National Flood Insurance Program (NFIP) Requirements: Use of Draft or Preliminary FIS Data

### For Zone A:

For Zone A areas designated on the community's effective FHBM or FIRM, the BFE and floodway data from a draft or preliminary FIS constitute available data under Subparagraph 60.3(b)(4). The requirement at Subparagraph 60.3(b)(4) is an important floodplain management tool for reducing flood damages in areas where a detailed engineering study to develop BFEs and designate floodways on streams has not been conducted. Communities are required to reasonably utilize the data from a draft or preliminary FIS under the section of their ordinance that applies to this paragraph. A community is allowed discretion in using

this data only to the extent that the technical or scientific validity of the data in the draft or preliminary FIS is questioned.

When all appeals have been resolved and a notice of final flood elevation determination has been provided in a LFD, communities are required to use the BFE and floodway data for regulating floodplain development in accordance with 44 CFR 60.3(b)(4) since the data represents the best data available. This includes meeting the standards at 44 CFR 60.3(c), and (d) which includes the requirement that new construction, substantial improvements, and other development have their lowest floor elevated to or above the BFE (non-residential structures can also be floodproofed to or above the BFE). Communities must regulate floodplain development using the data in the FIS under 60.3(b)(4) until such time as the community has adopted the revised FIRM and FIS.

In Zone A areas, the rationale for requiring reasonable utilization of BFE and floodway data in a draft or preliminary FIS is premised on the absence of other BFE or floodway data and the need to protect new or substantially improved structures from flood damage until such time as appeals are completed and the BFEs and/or floodway are incorporated into the local ordinance. The use of the qualifier "reasonable" at 44 CFR 60.3(b)(4) reflects FEMA's statutory obligation to provide the public an opportunity to appeal the proposed elevation data.

If a community decides not to use the BFE or floodway data in the draft or preliminary FIS because it is questioning the data through a valid appeal, the community must continue to ensure that buildings are constructed using methods and practices that minimize flood damages in accordance with the floodplain management requirements under subparagraphs 60.3(a)(3) and (4).

- Subparagraph 60.3(a)(3) requires communities to review permit applications to determine whether proposed building sites are reasonably safe from flooding. If a proposed building site is floodprone, communities are to require that new construction and substantial improvements be adequately anchored, use flood resistant materials, be constructed to minimize flood damages, and have attendant utilities protected during the conditions of flooding.
- Subparagraph 60.3(a)(4) requires communities to review subdivision proposal and other proposed new development, including manufactured home parks or subdivisions, to determine whether proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is floodprone, communities are required to review such proposals to assure potential flood damages are minimized, utilities are constructed to minimize or eliminate damages, and adequate drainage is provided to reduce the exposure to flood hazards.

**For Zones AE, A1-30, AH, AO, VE, and V1-30:**

The NFIP floodplain management criteria do not require communities to use BFE and flood way data from a draft or preliminary Flood Insurance Restudy in Zones AE, A1-30, AH, AO, VE, and V1-30 in lieu of using the BFE and floodway data contained in an existing effective FIS and FIRM. Because communities are afforded the opportunity to appeal BFE data from a restudy in accordance with Section 1363 of the National Flood Insurance Act of 1968, as amended, a presumption of validity is given to existing effective BFE data that has gone through the formal statutory appeals process and which has been adopted by the community.

However, in cases where BFEs increase in the restudied area, communities have the responsibility to ensure that new or substantially improved structures are protected, particularly if the increases in BFEs are significant. While FEMA can not mandate or require a community to use BFE and floodway data in a draft or preliminary FIS as available data or to use the data at the time FEMA issues the LFD to the community, FEMA encourages communities to reasonably utilize this information in instances where BFEs increase and floodways are revised to ensure that the health, safety, and property of their citizens are protected.

In cases where BFEs decrease, the community should not use this information to regulate floodplain development until the LFD has been issued or at least until all appeals have been resolved. If the draft or preliminary FIS provides information that BFEs are decreasing, but a valid appeal actually results in higher BFEs, the community could place its citizens at a greater flood risk by using the draft or preliminary FIS to regulate floodplain development. Also, these structures could be subject to increased flood insurance premiums.

In communities where floodways have not been designated for all or some of the flooding sources, but BFEs have been provided, communities are required to apply the criteria at 44 CFR 60.3(c)(10). This provision requires that:

***Until a regulatory floodway is designated, no new construction, substantial improvements, or other development shall be permitted unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community. [44 CFR 60.3(c)(10)]***

However, if a draft or preliminary FIS has designated floodways where none had previously existed, communities should reasonably utilize this data in lieu of applying the encroachment performance standard of 44 CFR 60.3(c)(10) since the data in the draft or preliminary FIS represents the best data available. By utilizing the floodway data from a draft or Preliminary FIS, communities avoid the expense of conducting the hydraulic analysis necessary to demonstrate compliance with 60.3 (c)(10). In addition, communities can minimize flood damages by ensuring that the flood carrying capacity of the floodway is preserved since obstruction of floodways can significantly increase potential flooding upstream.

**For Zones B, C, and X:**

The NFIP floodplain management criteria do not require the use of BFE and floodway data from a draft or preliminary FIS under 44 CFR 60.3(b)(4) for an area or areas within Zones B, C, or X on the community's FIRM that are being revised to Zone AE, A1-30, AH, AO, VE, or V1-30. While FEMA can not mandate or require a community to use the information contained in the draft or preliminary FIS pertaining to areas designated as Zone B, C, or X as available data or use the data at the time FEMA issues the LFD to the community, FEMA encourages communities to reasonably utilize this information to ensure that the health, safety, and property of their citizens are protected.

**Important Note to Communities:**

In order to participate in the NFIP, all communities must initially adopt a resolution or ordinance which expresses a "commitment to recognize and evaluate flood hazards in all official actions and to take such other official action as reasonably necessary to carry out the objectives of the program" [44 CFR 59.22(a)(8)]. This is in addition to the general requirement that the community "take into account flood hazards to the extent that they are known in all official actions relating to land management and use" [44 CFR 60.1(c)]. When communities receive a draft or preliminary FIS, communities have a responsibility to evaluate and prudently use this information for actions in the floodplain to ensure that the health, safety, and property of their citizens are protected. Neglecting to take into consideration the information provided in a draft or preliminary FIS and not taking reasonable actions to ensure the safety of lives and property may subject the community to potential liability when flooding occurs.

In the interest of sound floodplain management and to anticipate the impacts of future development on flood elevations, communities also can, at their discretion, adopt more restrictive floodplain management requirements. For example, the community can require that new or substantially improved buildings be elevated or floodproofed to one or more feet above the BFEs provided in the draft or preliminary FIS. This more restrictive requirement is generally referred to as "freeboard".

**Ordinance Requirements: Adoption of the Data****For Zone A:**

When all appeals have been resolved and a notice of final flood elevation determination has been provided in a LFD, communities are required to use the BFE and floodway data for regulating floodplain development in accordance with 44 CFR 60.3(b)(4) since the data represents the best data available. This includes meeting the standards of Subparagraphs 60.3(c), (d), and/or (e). Communities must regulate floodplain development using the data in the FIS under Subparagraph 60.3(b)(4) until such time as the community has adopted the effective FIRM and FIS.

**For Zones AE, A1-30, AH, AO, VE, V1-30, B, C, and X:**

Communities are given six months from the date of the LFD in which to adopt the revised FIS and FIRM. This is in keeping with FEMA's statutory obligation to provide a reasonable time for the community to adopt floodplain management regulations consistent with the final flood elevation determinations. Subparagraph 44 CFR 59.24(a) of the NFIP Regulations provides for a six month compliance period in which the community must adopt the effective FIS and FIRM and amend existing regulations to incorporate any additional requirements under 44 CFR 60.3.

Floodplain management ordinances generally contain a section entitled "Basis for Establishing the Areas of Special Flood Hazard" in which the current effective FIS and FIRM are cited. Language in the ordinance may include any subsequent amendments thereto (i.e., to include any subsequent revised FIS and FIRM); however, this language should not be used as the basis for a community to use the preliminary FIS prior to the issuance of the LFD. If a community chooses to use BFE and floodway data from a preliminary FIS prior to the LFD being issued or use the data after a LFD is issued but before the effective date of the FIS and FIRM, it is advised that the community adopt this information before its use.

**Advisory Flood Hazard Data:**

FEMA may issue advisory flood hazard data in certain situations. A major flood disaster, such as from a coastal storm or from a failure of a flood protection system, may result in a community's effective FIS and FIRMs underestimating the extent of the flood hazard and the risk of flooding. FEMA may undertake a post-flood survey to document additional areas of the community subject to the base flood (1% annual chance) and to develop estimated flood elevations which will be used to reanalyze and revise the effective FIS and FIRMs. The information from the post-flood survey will be provided to communities as advisory information when the analyses indicates that the effective FIS and FIRMs are inaccurate. Also, communities may obtain or develop flood hazard data that indicates existing flood hazard areas that shows a greater risk than what is in the effective FIS and on the FIRM.

Communities are advised to prudently use this information for regulating floodplain development. When communities receive advisory flood hazard information or have evidence that there is an increased flood hazard risk, communities have a responsibility to evaluate and prudently use this information for actions in the floodplain to ensure that structures are not vulnerable to flood damage. If a community chooses to use this information, it is advised that the community formally adopt the information. Neglecting to take into consideration advisory or other flood hazard information and not taking reasonable actions to ensure that the health, safety, and property of their citizens are protected may subject the community to potential liability when flooding occurs.

## Insurance Implications

### Zone A:

For a new or substantially improved structure, communities can use information from a draft or preliminary FIS for completing the Elevation Certificate in Zone A areas. The flood insurance policies for new or substantially improved structures in Zone A that are rated using BFE data from a draft or preliminary FIS will often qualify for significantly lower insurance rates than policies that are rated without a BFE.

### Zones AE, A1-30, AH, AO, VE, and V1-30:

For flood insurance rating purposes, in Zones AE, A1-30, AH, AO, VE, or V1-30, new or substantially improved structures are rated based on the BFE and FIRM zone in effect on the date of construction until the revised FIRM becomes effective. This is the case regardless of whether the preliminary FIS indicates that the proposed BFEs will increase or decrease.

If a community chooses to use proposed BFEs from a draft or a preliminary FIS for a new or substantially improved structure, the flood insurance rate is still based on the BFE and FIRM Zone in effect on the date of construction. The flood insurance rate will be based on the elevation difference between the BFE and FIRM Zone in effect and the elevation of the lowest floor. Therefore, if a new or substantially improved structure is built to the proposed BFE from a draft or preliminary FIS and this BFE is higher than the BFE in effect, the flood insurance rate may be significantly lower. However, a new or substantially improved structure built to the proposed BFE that is lower than the BFE in effect may result in a significantly higher flood insurance rate. In this case, the insured will qualify for a premium pro rata refund once the revised FIRM is effective.

### Zones B, C, and X:

For flood insurance rating purposes, new or substantially improved structures are rated based on the FIRM Zone in effect (i.e., Zone B, C, or X) on the date of start of construction. If a community chooses to use proposed BFEs from a draft or preliminary FIS for a new or substantially improved structure, the flood insurance rate is still based on the FIRM Zone in effect (i.e., Zone B, C or X) on the date of construction.

## Further Information

Managing Floodplain Development in Approximate Zone A Areas, A Guide For Obtaining and Developing Base (100-year) Flood Elevations, FEMA 265, July 1995. Additional guidance pertaining to obtaining and developing BFEs in Zone A can be found in this publication. To obtain a copy of this publication, see the section on Ordering Information on the following page.

## Comments

Any comments on the Floodplain Management Bulletin should be directed to:

FEMA  
Mitigation Directorate  
500 C St., SW  
Washington, D.C. 20472

## Ordering Information

Copies of Floodplain Management Bulletins are available from various sources.

- Floodplain Management Bulletins can be ordered from the FEMA Distribution Facility. Use of FEMA Form 60-8 will result in a more timely delivery from the warehouse. The form can be obtained from FEMA regional offices or your state's Office of Emergency Management. Send publication requests to FEMA Distribution Facility, P.O. Box 2012, Jessup, MD 20794-2012. FEMA's Distribution Facility also accepts telephone requests (1-800-480-2520) and facsimile requests (301-497-6378).
- FEMA's Fax-On-Demand system: Call 202-646-FEMA (3362) and follow the directions.
- FEMA World Wide Web Page: <http://www.fema.gov/mit/>
- Copies of the Floodplain Management Bulletins can be obtained from the appropriate FEMA regional office.

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