



Guidelines for Using Digital Floodplain Boundary Maps

Background:

NRCS planners use 100-year (base flood) floodplain maps to determine whether a customer's planning land unit is located inside or outside of the floodplain boundary. This is critical for compliance with Executive Order 11988 and agency policy described in General Manual 190, Part 410.25. The objectives of Executive Order 11988 are to avoid, to the extent possible, the long and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development where there is a practicable alternative. Procedures for compliance with Executive Order 11988 are found in form FL-CPA-52 (Environmental Evaluation worksheet) and the National Environmental Compliance Handbook.

FEMA currently provides digital floodplain boundary maps in two formats: 1) the Q3 digital flood data and 2) the Digital Floodplain Insurance Rate Map (DFIRM). DFIRMs are considered to be more comprehensive and more accurate than the Q3s. DFIRMs include base map information and cartographic elements required to create "official" hardcopy maps to FEMA standards and specifications. Q3 digital flood data contain less detail and are considered less spatially accurate than the DFIRM due to limitations in procedures used in their development. FEMA's current standards recommend that a 250 foot buffer outside of the floodplain boundary line be applied to determinations made with Q3 datasets.

Guidelines:

When using digital floodplain datasets to compare the geographic location of a planning unit to the extent of the base floodplain, NRCS planners will follow these guidelines:

- 1) If a DFIRM product is used as an overlay to the planning unit and an orthorectified base (such as digital orthophotography), then the planning unit will be considered out of the base floodplain if the planning unit's boundary is not within, or does not intersect the base floodplain.
- 2) If a Q3 product is used as an overlay to the planning unit and an orthorectified base (such as digital orthophotography), then the planning unit will be considered out of the base floodplain if the planning unit's boundary is not within, does not intersect, and is located more than 250 feet away from the base floodplain boundary¹.

¹ Technical Note 2007-002 provides instructions for evaluating 250 foot buffer using ArcGIS functions.



- a. If a planning unit is located within 250 feet of the base floodplain boundary, then NRCS planners will consult printed Floodplain Insurance Rate Maps (FIRM) or online versions available at the [FEMA Map Service Center Product Catalog](http://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay?catalogId=10001&storeId=10001&categoryId=12001&langId=-1&userType=G&type=1&dfirmCatId=12009) listed at the following URL: <http://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay?catalogId=10001&storeId=10001&categoryId=12001&langId=-1&userType=G&type=1&dfirmCatId=12009>.

It is recommended that planners consult the appropriate county Map Index to obtain a FIRM map number and community boundary (if needed). When using the FEMA website, the Map Index is the last entry in the listing of FIRMs available by completing steps 1 – 4. When using FIRMs, NRCS planners need not consider a buffer from the base floodplain boundary.

A screenshot of the FEMA Map Service Center website. The page title is "FEMA Map Service Center". Below the title is a navigation bar with links for "Product Catalog", "Map Search", "Quick Order", "Digital Post Office", and "Help", along with a "Log on" button. The main content area is titled "FEMA Issued Flood Maps" and contains instructions: "Use the following selection boxes to find your area of interest. If you want all maps for a particular jurisdiction click the 'Get Kit' button which will appear to the right." There are four numbered steps: 1. "Select a State, District or Territory:" with a dropdown menu showing "FLORIDA". 2. "Select a County, Parish, etc.:" with a dropdown menu showing "ALACHUA COUNTY". 3. "Select a Community:" with a dropdown menu showing "ALACHUA CO*". 4. "Get FEMA Issued Flood Maps" button. To the right of the dropdown menus, there is a "FEMA ID" column with values 12, 12001, and 120001. Next to the FEMA ID 12001 is a "Get County Kit" button, and next to 120001 is a "Get Community Kit" button. A note says "To order state kits, please contact customer service at (800) 358-9616." At the bottom, there is a footer with links for "FEMA.gov", "Accessibility", "Privacy Policy", "FAQ", "Site Help", "Site Index", and "Contact Us", and the address "FEMA Map Service Center, P.O. Box 1038 Jessup, Maryland 20794-1038 Phone: (800) 358-9616".

- b. If a determination cannot be made from paragraph 2a, then NRCS planners will consult with appropriate local community floodplain administrator listed in the Florida National Flood Insurance Program Point of Contact index (FOTG Section I-Maps, page 25). Please note that highlighted entries in that index represent unconfirmed listings at this time.

Data Availability:

Individual county floodplain maps are loaded on service center servers and may be used as geospatial datasets in GIS. Naming conventions are as follows: Q3 datasets are named sfhaq3_a_fl<fips>.shp; DFIRMs are named dfirm_a_fl<fips>.shp, where<fips> represent an individual county's three digit FIPS code. These datasets are located under



F:\geodata\hydrography. Default legend files (dfirm_a_fl<fips>.lyr, sfhaq3_a_fl<fips>.lyr) are available for each floodplain layer and can be used to automatically display Special Flood Hazard Areas (areas subject to flooding in a 100-year flood event) in ArcMap.

Benefits:

Access to digital 100-year floodplain boundaries will facilitate the process of determining the flood-prone status of planning units because of the ability to overlay various georeferenced layers, to calculate distance between geographic features or create buffers in GIS. These guidelines are intended to provide a consistent approach in the use of digital floodplain boundary maps.

For additional information and support, please contact:

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