

A photograph of two people standing on a bridge. The bridge has a metal guardrail and a concrete surface with a large, jagged crack. In the background, there are trees and houses. The text is overlaid on the image.

Introduction to the National Flood Insurance Program

Miriam G. Anderson
Floodplain Management Specialist

Gary Heinrichs
Senior Floodplain Planner

WI Department of Natural Resources
Dam Safety, Floodplain and Shoreland Management

National Flood Insurance Program

- Known as the NFIP
- A voluntary program based on a mutual agreement between the Federal government, the state and the local community
- In exchange for **adopting** and **enforcing** a floodplain management ordinance, Federally-backed flood insurance is made available to property owners throughout the community.

NFIP

- Administered by the Federal Emergency Management Agency (FEMA) which has regulatory oversight
- DNR provides technical advice, community monitoring and ordinance approval
- Most of FEMA's minimum standards are in existing state regulations (NR 116)

NFIP Goals

- Reduce the loss of life and property caused by flooding
- Reduce rising disaster relief costs caused by flooding
- Reduce the reliance on flood disaster relief dollars by providing an alternate means of protection for insurable structures

Accomplishing NFIP Goals

- Publish maps to identify high flood-risk areas
- Inform and educate the public about the flooding risk to their property
- Attempt to guide development away from the flooding risks through education and regulation
- Ensure all structures are reasonably safe from flooding
- Make federally-backed flood insurance coverage available to property owners

Insurance

- Flood insurance is made available to all residents of the participating community
- Flood insurance is not available in non-participating communities
- Flood insurance is required as a condition of most mortgages and home equity loans for structures located within the floodplain
- Certain types of disaster assistance are not available in non-participating communities

State Role

- Establish development/building protection standards and promulgate state regulations
- Provide technical assistance including training to local community/agency partners
- In cooperation with FEMA, evaluate and document community/agency floodplain management activities
- Inform and educate the public

Local Role

- Adopt local floodplain management regulations in accordance with appropriate Federal/State laws
- Regulate development/building protection standards through permitting and inspection of construction activities to ensure compliance with adopted floodplain regulations
- Maintain records of floodplain development and mapping activities
- Inform and educate the public

NFIP Minimum Standards

- Ensure that all proposed **development** is reasonably safe from flooding
- Ensure that the **lowest floor** of any **new** or **substantially damaged or improved** structure within the SFHA is elevated to or above the base flood elevation.
- Ensure that **development** within the floodway does not increase flood heights.

Wisconsin Minimum Standards

- Chapter NR 116, Wisconsin Administrative Code
 - Exceeds NFIP minimum standards
 - 2 foot freeboard
 - Dryland access required for new flood fringe development
 - Prohibition on new floodway development
 - Cumulative improvement standard (50%)

Wisconsin Minimum Standards

- Model Floodplain Ordinance combines minimum state and federal standards
 - Includes recent changes to administrative code and Wisconsin Supreme Court decisions
 - Designed as stand-alone ordinance
 - Can be easily integrated into existing code language
 - All communities must adopt a compliant ordinance to remain in good standing in the NFIP
 - DNR has authority to review and approve ordinances on behalf of FEMA and DNR

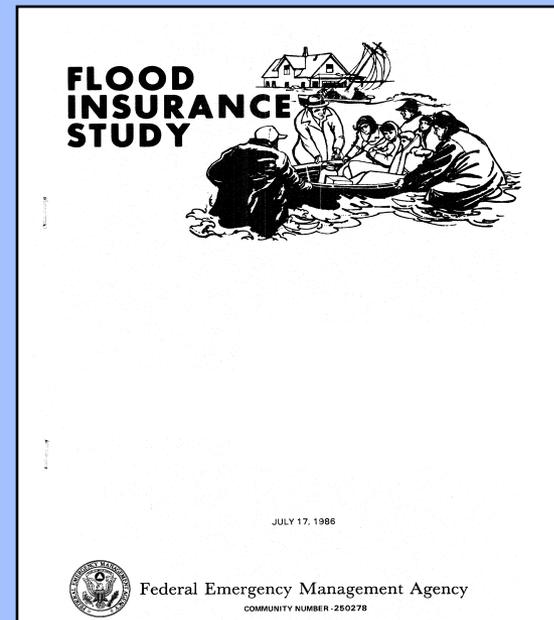
Important Definitions

- Development is defined as:
 - Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials (44 CFR 59.1 Definitions)
- Lowest Floor is defined as:
 - the lowest floor of the lowest enclosed area (including basement) ... provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements (44 CFR 59.1 Definitions)

Important Definitions

- Basement/cellar is defined as:
 - Any area of the building having its floor subgrade (below ground level) on all sides
 - Basement floor must be at or above RFE, but must be floodproofed to FPE
- Substantial Improvement is defined as:
 - Any reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the equalized assessed value of the structure before the start of construction of the improvement
 - Includes structures which have incurred substantial damage

Flood Insurance Rate Map (FIRM) Flood Insurance Study (FIS)



FIRM

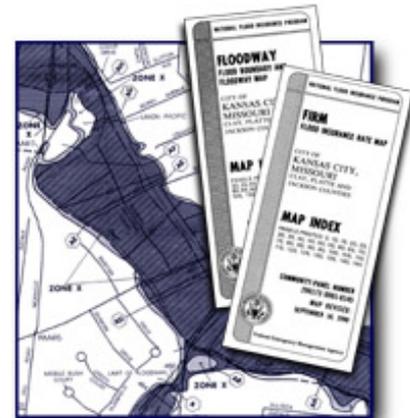
- Primary floodplain management tool
- Older maps known as Flood Hazard Boundary Maps (FHBM) and Flood Boundary Floodway Maps (FBFW)
- Now Digital Flood Insurance Rate Maps (DFIRM)
- Product of Flood Insurance Study (FIS)
- Identifies flood zones within community
- Maps used by a wide audience:
 - Government officials at all levels
 - Insurance agents
 - Lending institutions
 - Property owners

100-Year Flood

- The flood having a one percent chance of being equaled or exceeded in any given year
- Also known as base flood, one percent chance flood, special flood hazard area, etc.
- In WI known as the regional flood elevation (RFE)
- 100-year floodplain identified on FIRM as A zone or V zone
- In WI flood zones called flood fringe (FF), floodway (FW) and general floodplain (GFP)

100-Year Flood

- Specific to particular location
- Each year is independent
- Could occur two years in succession, or not once in 500 years
- Has 26% chance of occurring *or being exceeded* over life of 30-year mortgage



FIS

- Used to produce FIRM
- Contains background information on community and streams
- Has three main components:
 - Hydrologic study
 - Hydraulic study
 - Topographic analysis

Components of an FIS

- Hydrologic study

How much water will there be?

- Hydraulic study

How high will the water get?

- Topographic analysis

What areas will the water cover?

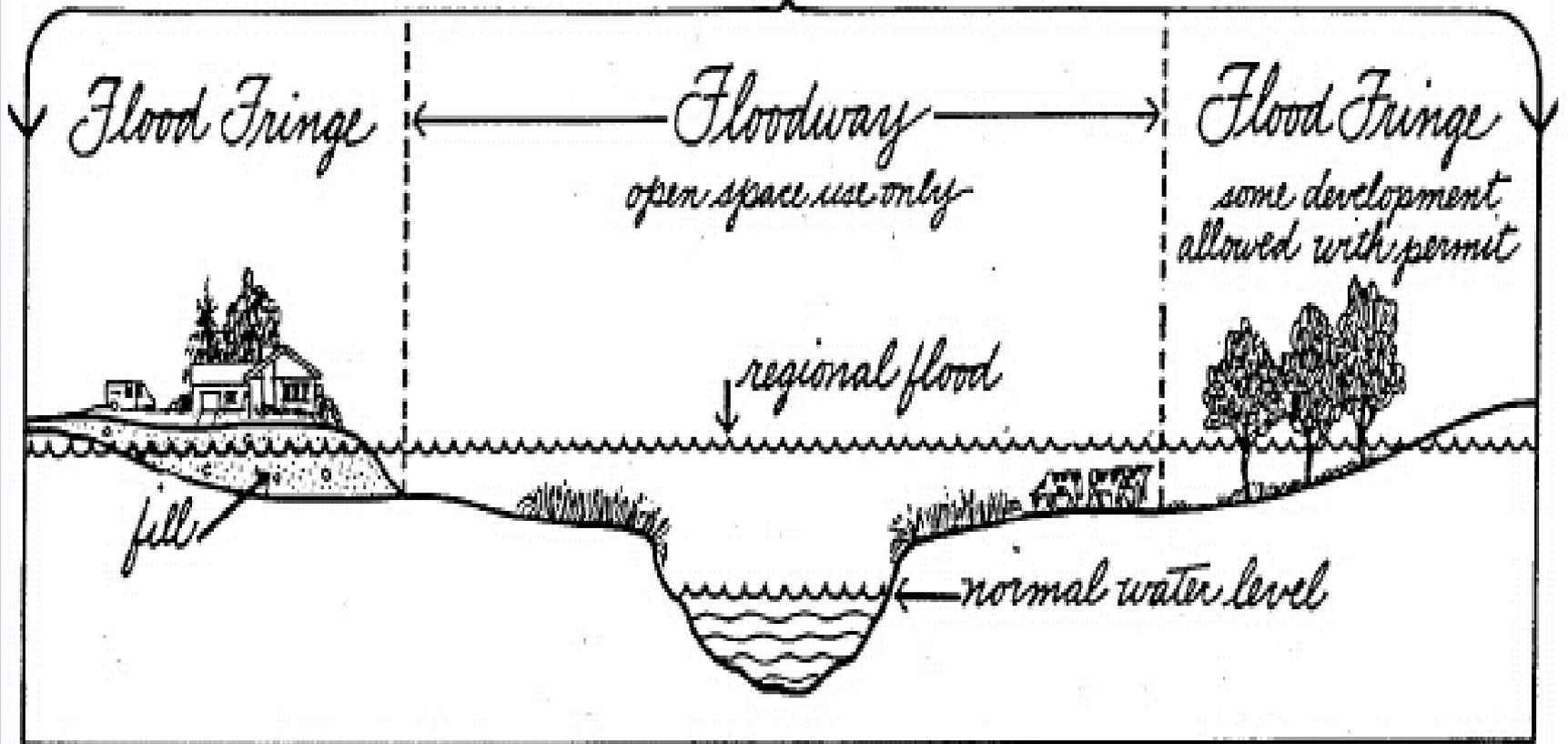
Using the FIRM/FIS



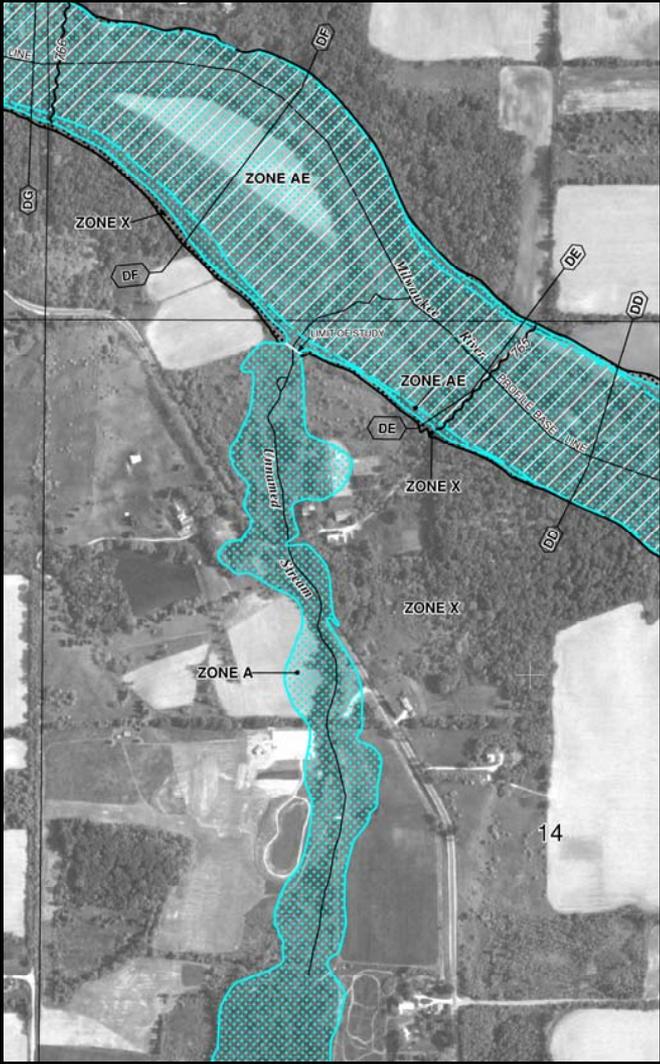
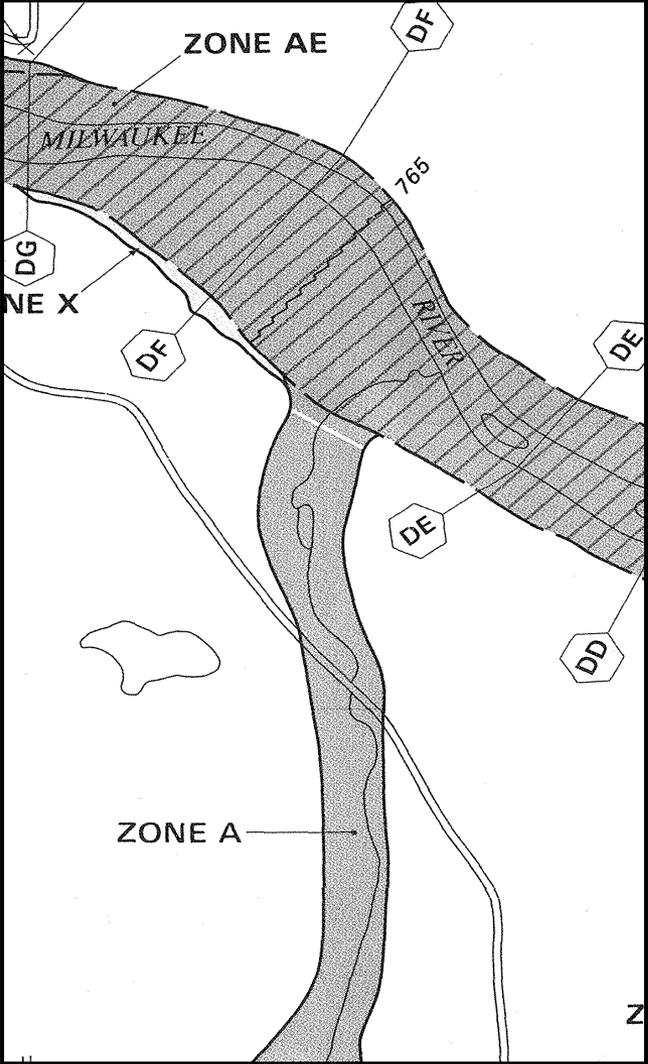
General Points to Consider

- Maps are a graphic representation of engineering data
- Detailed information generated only at specific locations
- Effective maps may not have all current data incorporated

Floodplain



DFIRM (Digital Flood Insurance Rate Map)



Step One: Collect Data

- Determine what information is readily available:
 - Flood Insurance Rate Maps (FIRMs/DFIRMs)
 - Flood Insurance Study (FIS)
 - Site plans and topography
 - Other studies or additional data



Step Two: Analyze Data

- Review existing data sources
- Ask specific questions
 - Type of flood analysis performed [FIS]
 - What flood zones are nearby [FIRMs]
 - What are base flood elevations (BFEs) in area [FIS/FIRMs]
 - Are cross sections located in vicinity [FIS]
 - What is ground elevation in vicinity [topo]

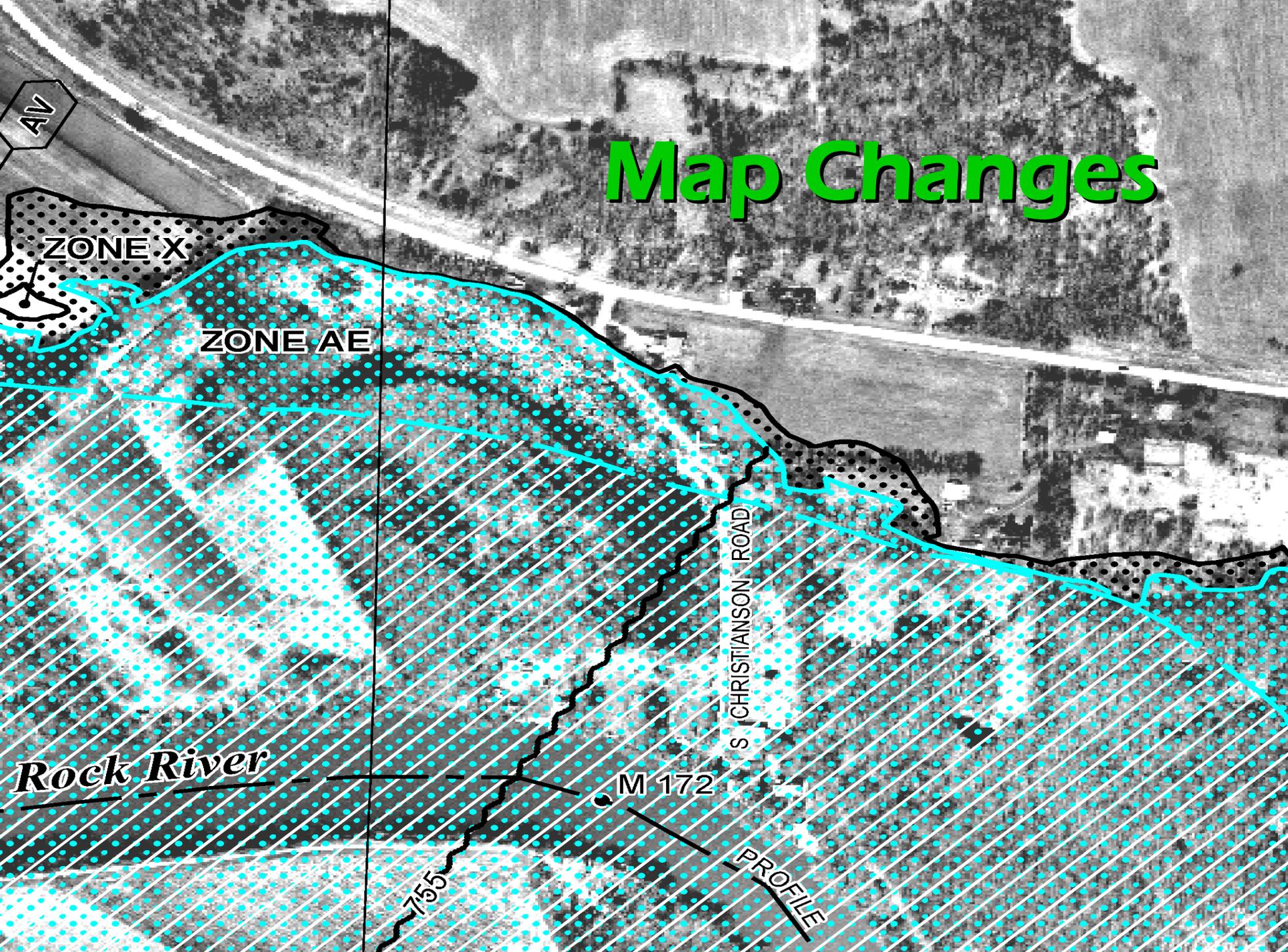
Step Three: Evaluate Data

- Determine specific question(s) to be answered:
 - Is all or part of property in flood zone?
 - Where is boundary between floodway and flood fringe?
 - What is RFE at given location?
- Determine whether new analyses are needed to answer question(s)

Locating Floodplain Boundaries

- When using a FIRM/DFIRM
 - Use stable landmark as starting point
 - Use centerlines of roads or trails
 - Check for reasonableness
- When using elevations
 - Same datum for all elevations
 - Bring flood elevation to ground of same elevation
 - Use best available topography
 - Cross sections can help

Map Changes



Map Changes

- May be either physical or administrative changes to the floodplain
- May be used to incorporate better technical data (hydrologic/hydraulic or dam failure study)
- Approved/issued by FEMA
- May be requested by property owner or community
- LOMRs, CLOMRs, LOMR-Fs must be issued prior to issuing a building permit

Types of Map Change

- LOMA
- LODR *(Special Case)*
- LOMR
- LOMR-F
- Physical Map Revisions

What is a LOMA

- An official amendment by letter to an effective NFIP map
- Establishes the structure or property's location in relation to the floodplain
- Typically requested by individual property owner
- Contact: FEMA
- Fee: No cost
- 30-60 days to process request

What is a LODR

- An official letter issued by FEMA in response to a request by a property owner for review of a lender's flood hazard determination
- Special Case zone determination only
- No map change
- For insurance and mortgage purposes
- Contact: FEMA
- Fee: \$80

What is a LOMR

- An official revision by letter to an effective NFIP map, which may change flood insurance risk zones, floodplain boundaries, and/or base flood elevations
- Conditional LOMR (CLOMR) will be required if work in the floodway causes any increase to BFE
- May be requested by property owner, community or state agency
- Contact: Regional Floodplain Engineer/FEMA
- Fee: Contact FEMA

What is a LOMR-F

- An official revision by letter to an effective NFIP map, which is caused by placement of fill on the property and which may change flood insurance risk zones, floodplain boundaries, and/or base flood elevations
- May be requested by property owner, community or state agency
- Contact: Regional Floodplain Engineer/FEMA
- Fee: Contact FEMA

NOTE

FEMA

- Fill standard is RFE
- Only building site needs to be filled
- Community acknowledgment form required

Wisconsin

- Fill standard is RFE + 2 feet
- Fill site must be contiguous to lands outside the floodplain
- Regional floodplain engineer must review and approve project

Physical Map Revisions

- An official republication of an NFIP map to effect changes to BFEs, floodplain boundaries and floodways
- Typically occur as a result of structural works or improvements, annexation of floodplain lands or corrections to technical data
- May be requested by community, state or FEMA
- Contact: FEMA

File Maintenance

- Letters issued by FEMA affecting NFIP maps must be maintained by the community
- Required data for floodplain ordinance administration and permitting
- Letters should be kept with maps and other related technical data

Regulations Affecting Floodplain Development in Wisconsin



- **National Flood Insurance Program Regulations**
 - 44 CFR 60, Criteria for Land Management and Use
- **Wisconsin Floodplain Management**
 - Chapter NR 116, Wisconsin Administrative Code
- **Wisconsin Shoreland Management**
 - Chapter NR 115, Wisconsin Administrative Code
- **Wisconsin Shoreland-Wetland**
 - Chapter NR 117, Wisconsin Administrative Code
- **Wisconsin St. Croix Riverway**
 - Chapter NR 118, Wisconsin Administrative Code
- **Wisconsin Septic System**
 - Chapter COMM 83, Wisconsin Administrative Code
- **Community Floodplain Zoning Ordinance**
 - Ideally incorporates all of the above

Requirements of the NFIP and NR 116

- Set minimum requirements
- Apply to all development within floodplain areas
- Enforced by local Building Department or Floodplain Administrator with oversight by DNR
- Specific requirements depend on the flood zone
- To be excluded from the floodplain for flood insurance purposes Letter of Map Revision Based on Fill (LOMR-F) must be obtained prior to construction

Requirements of the NFIP and NR 116

- Restricts development in floodway (WI)
- Primary requirement in flood fringe areas is the elevation of the lowest floor, excluding basement, to 2 feet above the RFE [basement must be floodproofed to FPE] (WI)
- Fill must be to 1 foot above RFE and extend 15 feet around structure (WI)
- Dryland access required [2 exceptions] (WI)

Hydrostatic Openings

- Allowed only for legal nonconforming structures
- A minimum of two openings having a total net area of ... one square inch for every one square foot of enclosed area
- The bottom of all openings shall not be higher than 12 inches above grade





Noncompliance



Location _____ Date *9/16/19*
CITY OF GREENVILLE, N. C.
CONDEMNED
"THIS BUILDING IS UNFIT FOR HUMAN HABITATION, OR IS DANGEROUS FOR OCCUPANCY. IT IS HEREBY CLOSED AND ITS USE IS PROHIBITED"
Removing or Defacing This Notice
-OR-
Rental or Occupancy of this Structure
-IS-
PROHIBITED AND UNLAWFUL
[Signature]
Building Inspector, City of Greenville

Location _____ Date *9/16/19*
CITY OF GREENVILLE, N. C.
ACCESS PROHIBITED
Pursuant to authority of a Proclamation Declaring a State of Emergency, access to this building is denied. No person shall obtain access or attempt to obtain access to this building. Violation of this prohibition is unlawful and is punishable as provided in G.S. 14-4.
[Signature]
Chief of Police, City of Greenville

What Happens When A Community Does NOT Enforce Its Floodplain Management Ordinances ?

- Communities are required to adopt and enforce a floodplain management ordinance that meets minimum NFIP and state requirements.
- Communities that do not enforce these ordinances can be placed on probation or suspended from the NFIP.
- Action taken only after FEMA/State has provided help to the community to become compliant.

PROBATION

- A formal notification by FEMA to a community that its floodplain management program does not meet NFIP criteria. An action authorized under Federal regulations.
- Community can be placed on probation 90 days after FEMA provided written notice to community officials of specific deficiencies.
- Probation may be continued for up to 1 year after the community corrects all program deficiencies and remedies all violations.

PROBATION.....

- An additional \$50 charge is added to the premium for each policy sold or renewed
- Additional charge is effective for at least 1 year after the community's probation period begins
- Probation DOES NOT AFFECT the availability of flood insurance

SUSPENSION

- A community is subject to suspension when it fails to correct program deficiencies including failure to adopt an adequate ordinance.
- The community is provided written notice of the impending suspension and granted 30 days to show cause why it should not be suspended.

SUSPENSION

- If suspended, the community becomes non-participating and flood insurance policies cannot be written or renewed.
- Policies in force at the time of suspension continue in force for the policy term.
- Three-year policies remain in force until the next annual anniversary date of the policy.

NOTE

Failure to adopt a compliant amended floodplain ordinance for a Physical Map Revision **and** have the amended ordinance approved by DNR and FEMA by 12:00 AM of the effective map date will result in **immediate** suspension from the NFIP. Suspension will be lifted upon adoption and approval of a compliant ordinance.



QUESTIONS