

NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FOR COMMUNITY OFFICIALS

Presented by:

Ohio Department of Natural Resources
Floodplain Management Program



Did you know?

- Floods are the most common & most costly natural disaster in the United States.
 - Many homeowners & other property owners are often unaware that their property is flood-prone
- Before most forms of Federal disaster assistance can be offered, the President must declare a major disaster.
- Homeowners' insurance policies generally do not cover flood losses
- Flood insurance claims are paid whether or not a disaster has been Presidentially declared.

Did you know? (continued...)

- The most common form of Federal disaster assistance is a loan, which must be paid back with interest.
- There are over 5 million flood insurance policies in force in more than 22,000 communities across the U.S.
- Over the life of a 30-year mortgage, there is a 26% (or 1 in 4) chance that a building in a floodplain will experience a flood that will equal or exceed the 1-percent-chance flood (100-year flood).
- Approximately 40% of all claims paid by the NFIP are for policies outside of the mapped floodplain.

National Flood Insurance Program

- The **NFIP** is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for adopting & administering community floodplain management regulations that reduce future flood damages.
- The NFIP is administered:
 - Nationally by the Federal Emergency Management Agency (FEMA)
 - Statewide by the Ohio Department of Natural Resources' Floodplain Management Program (FMP)
 - Locally by Counties (unincorporated areas) & Municipalities
 - Currently, Ohio has 753 NFIP-participating communities

NFIP Participation

- NFIP Participation
 - Participation by communities is voluntary
 - Community agrees to adopt & administer floodplain management regulations that are compliant with the minimum federal criteria (44CFR60.3)
 - *Administer* means to implement a floodplain development permitting process to ensure development is compliant
 - Community must designate an official responsible (**FLOODPLAIN MANAGER**) for administering a floodplain development permitting process
 - *The Floodplain Manager is often one of the following:*
 - CEO of the community
 - Building Official/Inspector
 - County/City Engineer
 - Planning Commission Director
 - Safety Service Director
 - City/Village Administrator
 - Mayor
 - County Commissioner
 - Clerk
 - Another position within the local government

NFIP Participation

- Makes federal flood insurance & additional forms of disaster assistance available to residents in a community
- How do you know if your community participates in the NFIP?
 - Call ODNR's Floodplain Management Program
 - [FEMA Community Status Book](#)
 - Lists participating & non-participating communities

The image shows a screenshot of the FEMA Community Status Book Report. It is a large table with multiple columns and rows, listing various communities and their participation status in the NFIP. The table includes columns for community name, county, and participation status. The report is titled 'Community Status Book Report' and 'Communities Participating in the National Flood Insurance Program'.

Why Is It Important for Community Officials to Understand NFIP Responsibilities & Regulations?

- Ensure development is compliant with community ordinance/resolution
 - Compliant development is more resilient to flood damage
 - Resilient development helps a community be more sustainable
 - Building in compliance with regulations is more cost effective & efficient for property owners
- Avoid having to pursue enforcement &/or retrofit structures to meet standards
- Maintain eligibility for residents to purchase federal flood insurance & receive disaster assistance

NFIP Roles & Responsibilities

- Floodplain Manager
- Surveyors
- Engineers
- Lenders
- Insurers

Floodplain Manager

- Understand the community's locally adopted floodplain management regulations
- Interpret data in the Flood Insurance Study (FIS) & on the Flood Insurance Rate Maps (FIRM)
- Review proposed development in Flood Hazard Areas
 - Obtain & use "best available data"
 - Assist applicants in use & interpretation of flood hazard information
 - Provide technical assistance
 - Interpret floodplain boundaries
 - Provide flood elevation data
 - Review Hydrologic & Hydraulic (H&H) Engineering Studies
 - Issue or deny floodplain development permit
 - Inspect floodplain development
 - Require as-built or floodproofing certification
 - Maintain records/evidence that development complies with local, state, & federal criteria
 - Perform damage assessment, when necessary
 - Implement enforcement & violation remedy procedures
 - Coordinate with ODNR & FEMA to ensure mapping & study accuracy through updates
 - Identify mitigation opportunities

Surveyors

- Acquire structural or site elevation data to verify compliance or support floodplain mapping procedures
- Verify elevation of structure's lowest floor
 - Use elevation certificate (EC)
 - EC is used to document how the structure was constructed & is evaluated during permit review process
- Verify flood map accuracy
- Can help initiate changes to FEMA maps

Engineers

- Design development to comply with state & community flood damage reduction standards
- Evaluate risks to development & build accordingly
- Assist in updating flood hazard maps
- Provide data that property owners can use to request changes to NFIP mapping

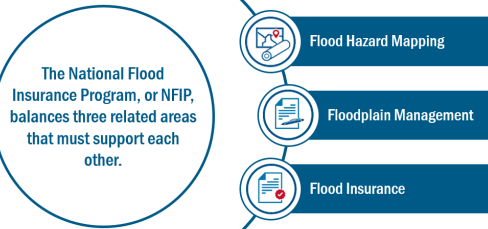
Lenders

- Finance private & community development through loans & mortgages
- Legally responsible for making determination if structure is located in the SFHA
- Must require the purchase of flood insurance during the term of the loan for all structures in the SFHA

Insurers

- Write & process claims for flood insurance policies (underwritten by the federal government)

How the NFIP Works:



FLOOD HAZARD MAPPING

NFIP Mapping Terms

Special Flood Hazard Area (SFHA) – Land in the floodplain subject to a 1% or greater chance of flooding in any given year. SFHAs are designated by FEMA on Flood Insurance Rate Maps & Flood Insurance Studies as Zones A, A1-30, AE, AH, AO, A99, V, V1-30, & VE.

Base Flood - The flood having a 1% chance of being equaled or exceeded in any given year. The base flood may also be referred to as the 1% annual chance flood or 100-year flood.

Base Flood Elevation (BFE) - The water surface elevation of the base flood in relation to a specified datum. It is the regulatory requirement for the elevation/floodproofing of structures.

Flood Insurance Rate Map (FIRM) - Official map of a community on which FEMA has delineated the SFHAs, the BFEs, & the risk premium zones applicable to the community.

Flood Insurance Study (FIS) - Official report in which FEMA has provided flood profiles, floodway boundaries, & the water surface elevations of the base flood.

NFIP Map Zones

► Flood Insurance Rate Map (FIRM)

- Issued by FEMA
- Depicts flood risk in a series of **Zones**
 - **High - Moderate - Low** flood risk
- Zones set minimum building requirements for floodplain & coastal areas
- Used by lenders to determine where flood insurance is required

- Special Flood Hazard Area (SFHA) = **High Risk**
 - Depicted on maps as beginning with the letters "A" or "V"

- Non-Special Flood Hazard Area = **Moderate-to-Low Risk**
 - Depicted on maps as beginning with the letters "B", "C" or "X" (or shaded X)

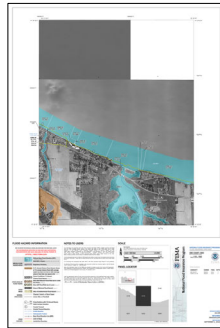
Flood Insurance Rate Map (FIRM) Zones

- Zone A:** Special flood hazard areas inundated by the 100-year flood; base flood elevations are not determined.
- Zones A1-30 & Zone AE:** Special flood hazard areas inundated by the 100-year flood; base flood elevations are determined.
- Zone AO:** Special flood hazard areas inundated by the 100-year flood; with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths are determined.
- Zone AH:** Special flood hazard areas inundated by the 100-year flood; flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations are determined.
- Zone A99:** Special flood hazard areas inundated by the 100-year flood to be protected from the 100-year flood by a Federal flood protection system under construction; no base flood elevations are determined.
- Zone B & Zone X (shaded):** Areas of 500-year flood; areas subject to the 100-year flood with average depths of less than 1 foot or with contributing drainage area less than 1 square mile, & areas protected by levees from the base flood.
- Zone C & Zone X (unshaded):** Areas determined to be outside the 500-year floodplain.
- Zone V:** Coastal special flood hazard area subject to a 100-year flood from velocity hazard (wave action); base flood elevations are not determined.
- Zone VE and V1-30:** Coastal special flood hazard area subject to a 100-year from velocity hazard (wave action); base flood elevations are determined.

NFIP Mapping Data

Maps

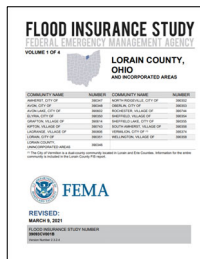
- Shows flood hazard areas
 - aka Special Flood Hazard Area (SFHA)
- Establish boundaries for fringe & floodway areas
 - SFHAs are the blue shaded areas on FIRMs
 - SFHAs represent the area of the 1%-annual-chance flood & are designated as Zones A, A1-30, AE, AH, AO, A99, V, V1-30, & VE on the FIRM
 - Most FIRMs show BFEs rounded to the nearest whole number

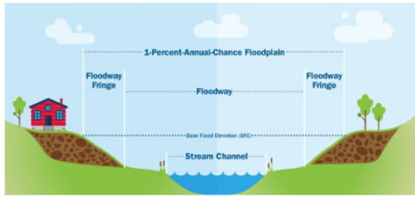


NFIP Mapping Data

Flood Insurance Study (FIS)

- Hydrology (flow & frequency)
- Hydraulics (conveyance, velocity & elevations)
- Insurance risk zones
- Flood elevation profiles
- Floodway Data Tables
- Hydrologic & Hydraulic Analysis
 - A Zones: Data in FIS is **ALWAYS** more detailed than on the FIRM.
 - V Zones: Use BFEs on the FIRM, not Stillwater elevations from the FIS

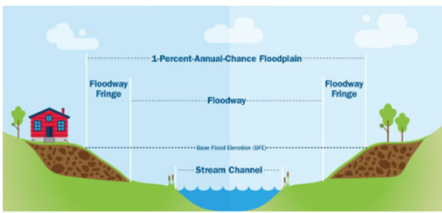




➤ **SFHA = Fringe + Floodway**

➤ **Fringe:**

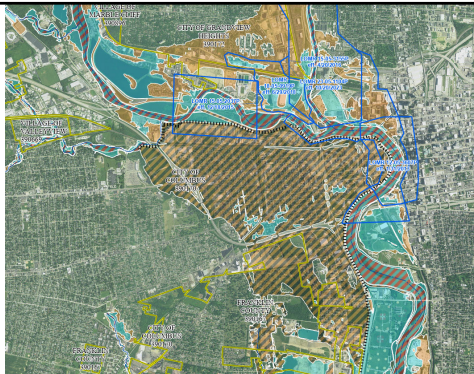
- Part of the floodplain (outside of the floodway) that will be inundated by the 1%-annual-chance flood.
- Floodplain regulations for the flood fringe allow development to occur
- Regulations require protection from flood waters through:
 - Elevation of the building's lowest floor to or above the 100-year flood level
 - Dry floodproof buildings to or above the 100-year flood level so that water cannot enter the structure



➤ **Floodway:**

- Floodway is the channel & adjacent land area reserved to convey the base flood discharge
- **Cumulative** impact of floodplain development limited to 1 foot at any point
- If entire floodplain outside the floodway were filled, no more than a 1-foot rise would occur as a result of the fill
- Proposed development must be evaluated through hydrologic & hydraulic (H&H) analysis to determine impact.

A Closer Look...



Online Access to NFIP Data: MSC

Map Service Center (MSC)

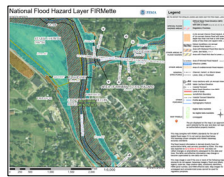
- FEMA's official online public source to find all flood hazard mapping products created under NFIP
- Create, download & print small size legal copy of FIRM known as a FIRMette
 - Legal to-scale copy of the FIRM
 - Only depict a portion of the FIRM
 - Can be printed or saved as .pdf or .tif files
- Effective FIRM, FIS & LOMCs may be accessed through the site's *Address Search*.
 - The full range of products is accessible through the *Search All Products* function.
 - All MSC products and services are available at no cost.

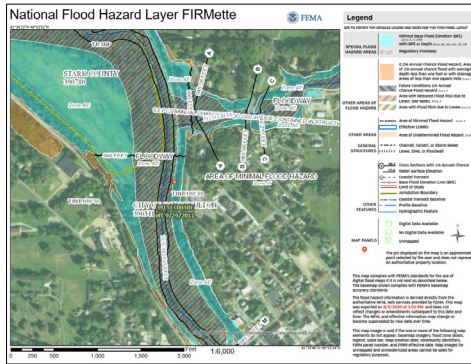


Online Access to NFIP Data: NFHL

National Flood Hazard Layer (NFHL)

- FEMA's official online public source to find most Flood Insurance Rate Maps
- Create, download & print small size legal copy of FIRM known as a FIRMette
- Legal to-scale copy of the FIRM
- Only depict a portion of the FIRM
- Can be printed or saved as .pdf
- Only counties that have been digitized will be available on the NFHL.





REGULATIONS

NFIP Regulations

- Adopted locally by municipalities (cities/villages) & unincorporated county areas as a condition of NFIP-participation
- Provide authority to regulate development
- Identify duties of the Floodplain Manager
- Based on the type of flood hazard data that is provided to the community by FEMA.
- Apply to **ALL** development in the 100-year floodplain/1%-annual-chance floodplain/SFHA.
- Outline permitting & development review process, variance/appeals guidelines, enforcement procedures, & minimum criteria for compliance

NFIP Regulations

- Floodplain management regulations are designed to ensure that new buildings & substantially improved existing buildings in floodprone areas are protected from flood damage.
- 44CFR60.3
- Must be legally enforceable
 - Community floodplain management regulations are usually found in: zoning ordinances, building codes, subdivision ordinance, sanitary regulations, & "stand alone" floodplain management ordinances.
- Apply to any **development** proposed in mapped SFHAs:
 - Zones A, A1-30, AE, AO, AH, A99, V, V1-30, & VE
 - Use floodplain development permitting process to review proposed development for compliance with community floodplain management regulations.

What is "Development"?

Defined as any man-made change to improved or unimproved real estate, including but not limited to:

- Construction or placement of new buildings & other structures including:
 - Accessory structures
 - Manufactured homes
 - Tanks
- Additions, repairs or renovations to existing structures, when such actions are classified as "substantial improvements"
 - Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement.
- Repair & restoration of existing buildings that have been substantially damaged by any cause (flood, fire, wind, tornado, or any other damaging event)

Development continued...

- | | | |
|------------|--------------|---|
| • Mining | • Grading | • Drilling operations |
| • Dredging | • Paving | • Temporary/permanent storage of equipment or materials |
| • Filling | • Excavating | |

- Installation of utilities & other site improvements
- Construction or modification of flood control works, including levees, floodwalls, & channels
- Construction, modification/replacement of roads, bridges, & culverts
- Any related activities that may affect the floodplain, especially those that may increase the level of the 1%-annual-chance flood

Floodplain Development Permitting

Process to review & evaluate proposed development in SFHAs to ensure compliance with regulations:

- 1) Identify the proposed development
- 2) Determine whether a Floodplain Development Permit is needed
- 3) Application review
- 4) Approve or Deny the permit
- 5) Perform inspections during construction
- 6) Acquire completed Elevation or Floodproofing Certification
- 7) Provide a Certificate of Occupancy

Regulations

➤ GENERAL STANDARDS (apply to ALL development in SFHAs)

- Designed (or modified) & adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic & hydrostatic loads, including the effects of buoyancy
- Constructed with materials resistant to flood damage
- Constructed by methods & practices that minimize flood damages
- Constructed with electrical, heating, ventilation, plumbing, & air conditioning equipment & other service facilities that are designed &/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- Must generate BFE for large-scale development or subdivisions that exceed 5 acres or 50 lots, whichever is less
- New & substantially altered residential & nonresidential development must be elevated or floodproofed to or above the BFE
- No floodway development which results in an increase to 100-year water surface elevation

Regulations (Zones that begin with "A")

➤ Residential (Specific Standards)

- Lowest floor including basement must be elevated to or above the BFE
 - Elevation on fill, posts, piling, or solid foundation perimeter walls (i.e., enclosure below lowest floor)
- Require an as-built survey to verify
 - FEMA Elevation Certificate recommended

➤ Nonresidential (Specific Standards)

- Lowest floor including basement must be elevated OR dry floodproofed to or above the BFE
 - Elevation on fill, posts, piers, pilings, or solid foundation perimeter walls; or
 - Dry floodproofing: impermeable foundations, floodwalls, levees, flood shields
 - ◊ Must include utilities
 - ◊ Requires use of "Floodproofing Certificate"
 - ◊ 1 foot above BFE required for insurance policy premium reduction

AGRICULTURAL DEVELOPMENT IS **NOT** EXEMPT FROM LOCALLY ADOPTED FLOODPLAIN MANAGEMENT REGULATIONS

Regulations (Zones that begin with "A")

➤ Nonstructural

- Any development that does not involve a "building"; i.e. mining, dredging, filling, grading, paving, excavating, drilling operations, temporary/permanent storage of equipment or materials, installation of water & sewer utilities, & other site improvements, construction or modification of flood control works, including levees, floodwalls, & channels, construction, modification/replacement of roads, bridges, & culverts, etc...
- Must meet GENERAL STANDARDS

Development Standards for Coastal Zones

Applies to new development (or substantial improvements) in coastal high hazard areas (Zone VE)

- Must be located landward of the reach of mean high tide. They cannot be built over water.
- Shall be elevated on pilings or columns
- Bottom of the lowest horizontal structural member supporting the lowest floor (excluding the pilings/columns) must be elevated to or above the BFE, &
- Pile or column foundation & structure must be anchored to resist flotation, collapse & lateral movement due to the effects of wind & water loads.
- Space below the lowest floor must be either free of obstruction
 - Constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system

Substantial Damage (50% Rule)

Substantial Damage

- When a structure (in the SFHA) is damaged to 50% (*determined by the Floodplain Manager*) or more of its market value by any means, it must be brought into compliance with community floodplain management regulations.
 - Flood insured structures within the mapped floodplain that are substantially damaged (by flood) may be eligible for **Increased Cost of Compliance (ICC)**.
 - **ICC**: Flood insurance policyholders in SFHAs can get up to \$30,000 to help pay the costs to bring their home/business into compliance with local floodplain regulations

Substantial Improvement (50% Rule)

> Substantial Improvement

- When a structure (in the SFHA) is improved to 50% or more of its market value, it must be brought into compliance with community floodplain management regulations
 - Includes any reconstruction, rehabilitation, addition, or other improvement of a structure
 - (FEMA has provided specific guidance for compliance regarding lateral & vertical additions.)
- Substantial Improvement does not, however, include either:
 - Any improvement to correct existing violations of state or local health, sanitary, or safety code specifications
 - Any alterations of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

FLOOD INSURANCE

The Importance of Flood Insurance



Where it rains it can flood—whether a property is inside or outside the high-risk flood zone. More than 40% of flood insurance claims come from **outside** the high-risk area.



Securing flood insurance can help homeowners, business owners, or renters protect their property. Individuals who are insured are able to recover faster and more fully from a flood than their uninsured neighbors.



Just one inch of water in an average-sized home can cause more than \$25,000 in damage. Most homeowners' insurance does not cover flood damage.

Flood Insurance

- Incentive for communities to adopt & enforce floodplain management regulations to reduce future flood risk for new construction in SFHAs.
- Helps protect property owners against flood losses.
- Serves as an alternative to disaster assistance & disaster loans.

- **What is a flood?**
 - "Flood" is defined in the Standard Flood Insurance Policy (SFIP), in part, as: A general & temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters or from the unusual & rapid accumulation or runoff of surface waters from any source.

- **How is flood insurance purchased?**
 - When a community participates in the NFIP, a policy may be purchased from any licensed property insurance agent or broker who is in good standing in the State in which the agent is licensed or through any agent representing a Write Your Own (WYO) company.

Flood Insurance Basics

- **Where can flood insurance be purchased?**
 - Write-Your-Own (WYO) – *most common*
 - WYOs are participating property & casualty insurance companies that write & service the Standard Flood Insurance Policy in their own names.
 - The companies receive an expense allowance for policies written & claims processed.
 - The Federal Government retains responsibility for underwriting losses.
 - The WYO Program operates as part of the NFIP & is subject to its rules & regulations.

 - Direct from FEMA

 - Private Market

Flood Insurance Basics

- **Who can purchase flood insurance?**
 - If the community participates in the NFIP, the following can purchase a federal flood insurance policy:
 - Owners
 - Renters
 - Owners of buildings in the course of construction
 - Condominium associations
 - Owners of residential condominium units
- Regardless of Zone (i.e. flood insurance is available in A, V, or X Zones)
- **Waiting Periods:**
 - At closing – Immediately
 - Required by lender due to map change – 1 day
 - All others – 30 days

Mandatory Purchase

- Property owners within participating communities who have a mortgage through a federally regulated lender on a structure within the mapped flood hazard area are required to carry flood insurance throughout the duration of the loan.
- Property owner must carry flood insurance equal to one of the following:
 - Amount required for loan, i.e. outstanding principal balance
 - Maximum amount of coverage available under the NFIP
 - (\$250,000 residential, \$500,000 non-residential)
 - 100% Replacement Cost Value (not including the market value of the land)
 - Determining factor is lender

Flood Insurance Premium Rates

- Risk Rating 2.0 considers specific characteristics of a building – the **Where, How, & What** – to provide a more modern, individualized, & equitable flood insurance rate.
- Understanding these characteristics helps to identify the building's unique flood risk & associated premium.

WHERE It Is Built (Property Address)

FEMA uses the building's property address to determine flood risk for the property. The property address is used to determine:

- **A building's distance to flooding sources**, including the distance to the coast, ocean, rivers, and Great Lakes.
- **The ground elevation** where the building is located relative to the elevation of the surrounding area and the elevation of nearby flooding sources.
- **Other characteristics** such as the community where the building is located and how that relates to the Community Rating System discount or whether the building is on a barrier island.



HOW It Is Built (Building Characteristics)

Knowing the physical characteristics of a building provides a deeper understanding of the building's individual flood risk and how it may impact premium. Relevant variables include:

Building Occupancy

The type (and use) of the building being insured sets available coverage limits and determines what is covered as indicated in the policy form.

Foundation Type

The foundation type provides important insight as to where the flood risk is likely to begin. For instance, risk varies based on whether a building's foundation is underground, at ground, or above ground.

First Floor Height

Buildings whose first floor is higher off the ground have lower flood risk.

Number of Floors

Buildings with more floors spread their risk over a higher area.



Unit Location

Individual units on higher floors have lower flood risk than units on lower floors.

Construction Type

Masonry walls perform better in different flooding events than wood frame walls.

Flood Openings

Flood openings can lower a building's flood risk as they allow floodwaters to flow through a building's enclosure or crawlspace.

Machinery & Equipment

Elevating above the first floor lowers the risk of damage to machinery & equipment covered in the policy.

WHAT Is Built and Covered (Replacement Cost and Coverage)

The building's replacement cost value, the amount of coverage requested, and the deductible choices influence the insurance premium.



Building Replacement Cost Value*
Buildings with higher costs to repair generally result in higher losses, resulting in higher premiums.



Building and Contents Coverage
Policies with higher coverage limits have higher potential loss costs, which lead to higher premiums. Building coverage and contents coverage amounts are selected separately.



Building and Contents Deductible

Policyholders who choose higher deductibles are assuming more of the risk during a flood event, which can result in a lower overall premium. Choosing a higher deductible means policyholders will need to cover more of the cost to rebuild out of pocket.

* The Building Replacement Cost Value used for rating does not affect the replacement cost value determined at time of loss.

Educational Opportunities

- > [ODNR Webinars, Regional Workshops, & FEMA Webinars](#)
- > [Emergency Management Institute \(EMI\)](#)
- > [Managing Floodplain Development through the NFIP Course](#)
May 7-10, 2024
Brooklyn City Hall
- > [Ohio Statewide Floodplain Management Conference](#)
August 21-22, 2024
Hilton Polaris in Columbus, OH

QUESTIONS?

For more information, please contact ODNR's Floodplain Management Program.

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