



MASON COUNTY Community Consultation Officers (CCO) Meeting

September 18, 2019



FEMA



TODAY'S AGENDA

Review the Updated Flood Risk Data for Your County

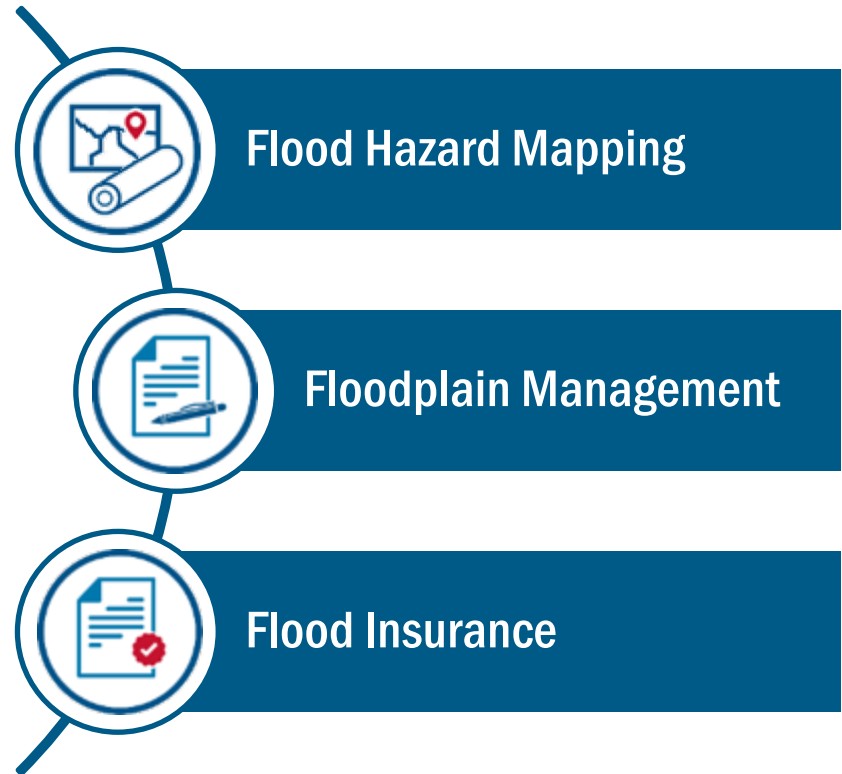
Next Steps in the Map Adoption Process

Understanding Floodplain Management Ordinance Requirements

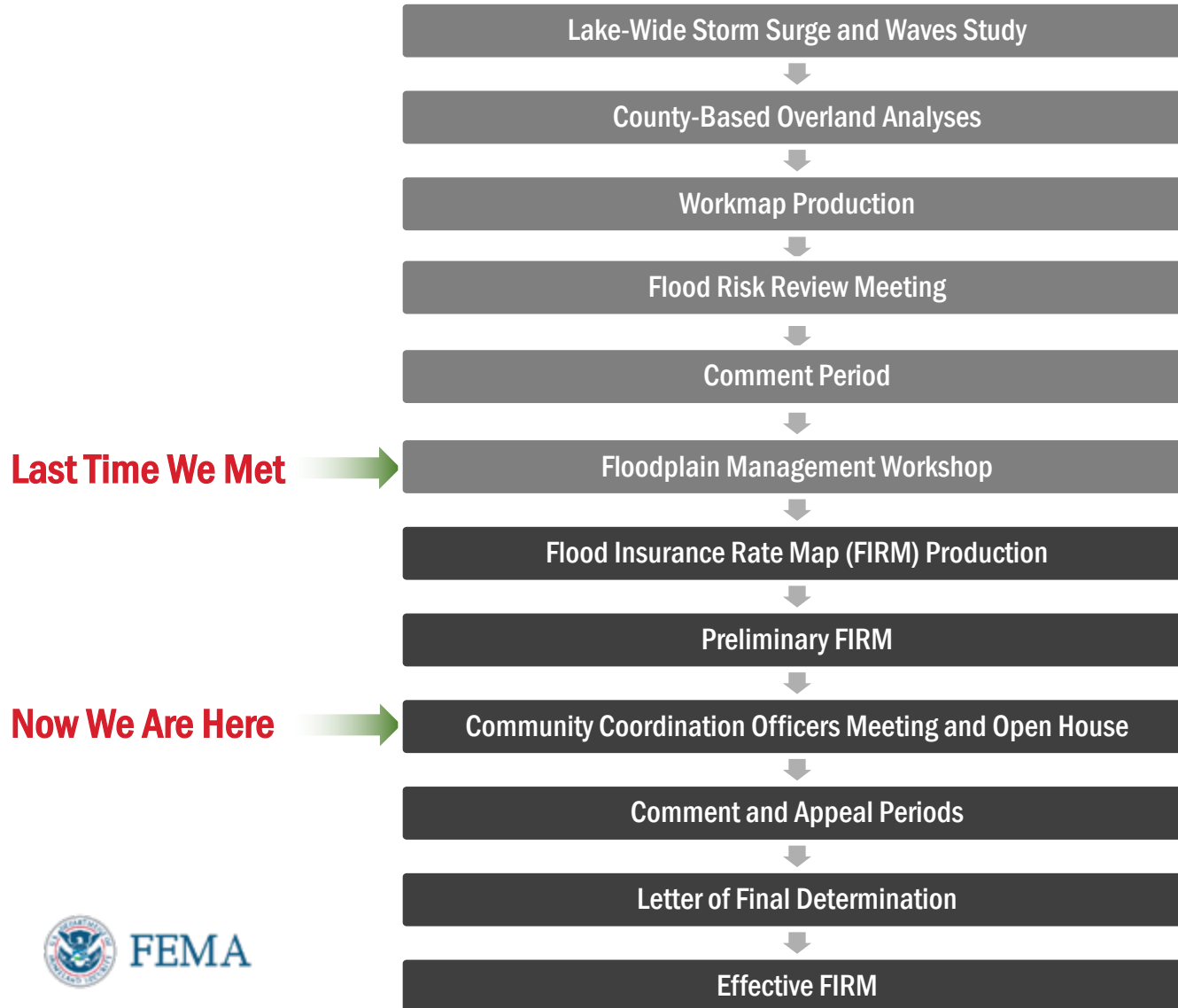
Hazard Mitigation Planning

The National Flood Insurance Program

The National Flood Insurance Program, or NFIP, balances three related areas that must support each other.



The Status of This Study



Reviewing the Updated Flood Risk Data for Your County



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Why is FEMA Updating Your Flood Maps?

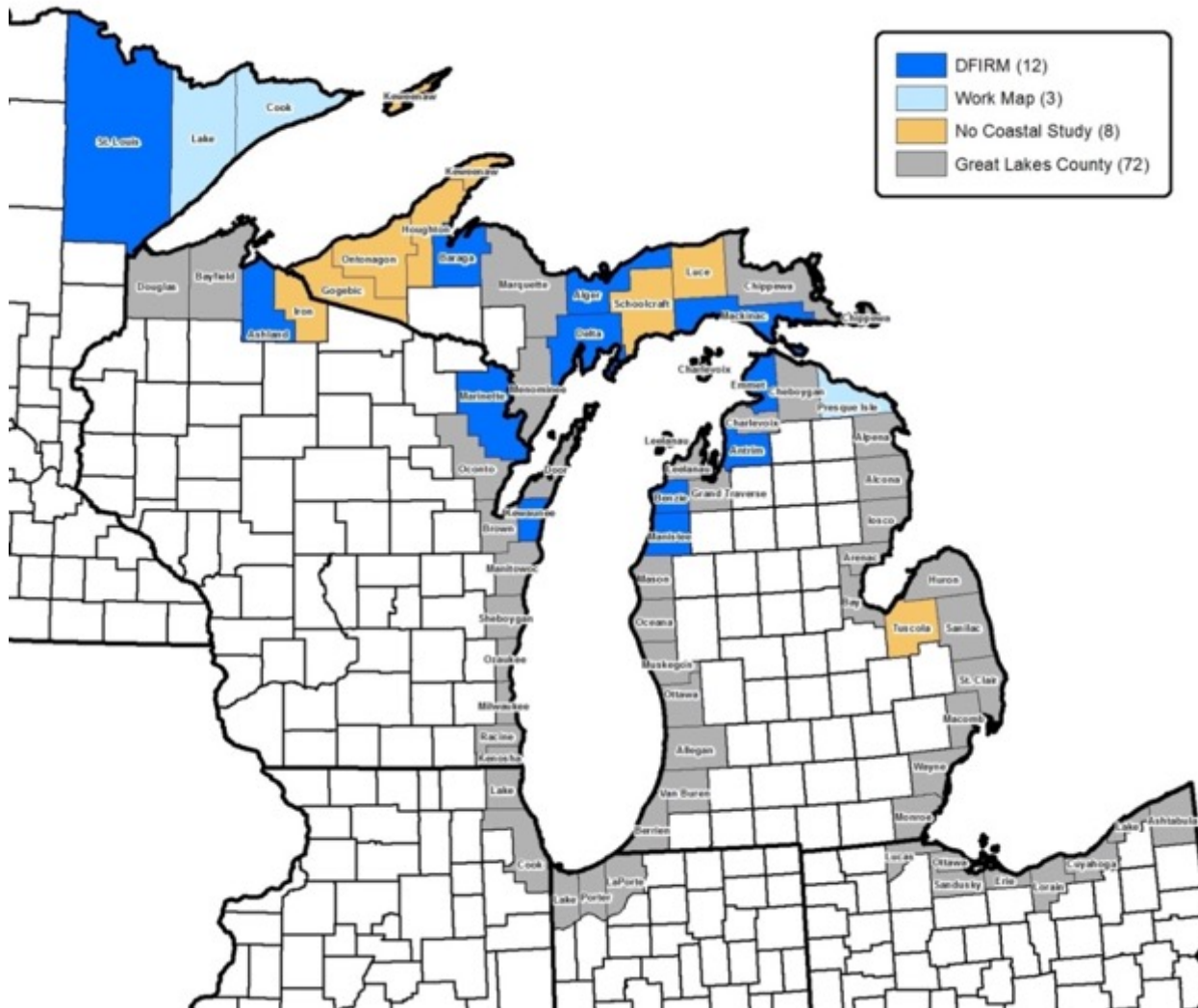
The **Great Lakes Coastal Flood Study** provides updated flood risk information for areas around each of the Great Lakes using uniform methodology, updated terrain data, and modern wave modeling techniques.

Many factors contribute to flood map revisions:

- ▶ Population growth & increased development
- ▶ Movement in rivers & shorelines
- ▶ Changing technology and improved modeling techniques and data



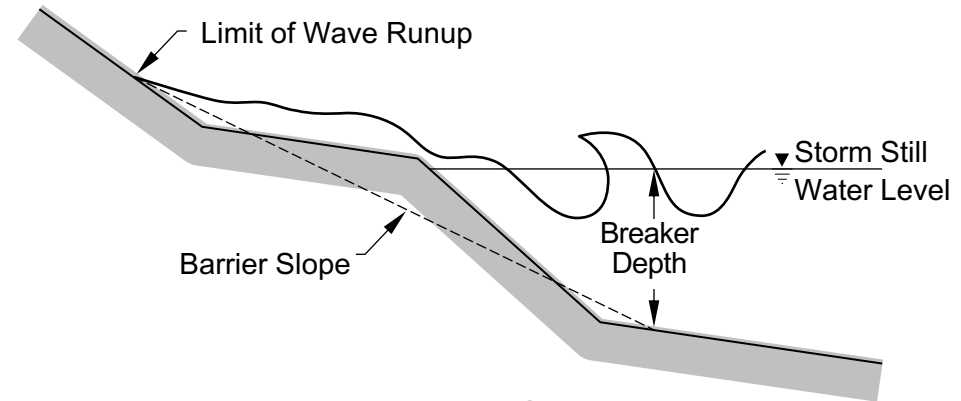
Program Goals and Status



The Great Lakes Coastal Flood Study Approach

Regional Study Approach

- Lake-wide water level and wave analysis
 - 150 storms from 1960 to 2009
 - Modeling conducted by STARR in 2017
- Greater consistency in assumptions
- Reduces number of boundary conditions



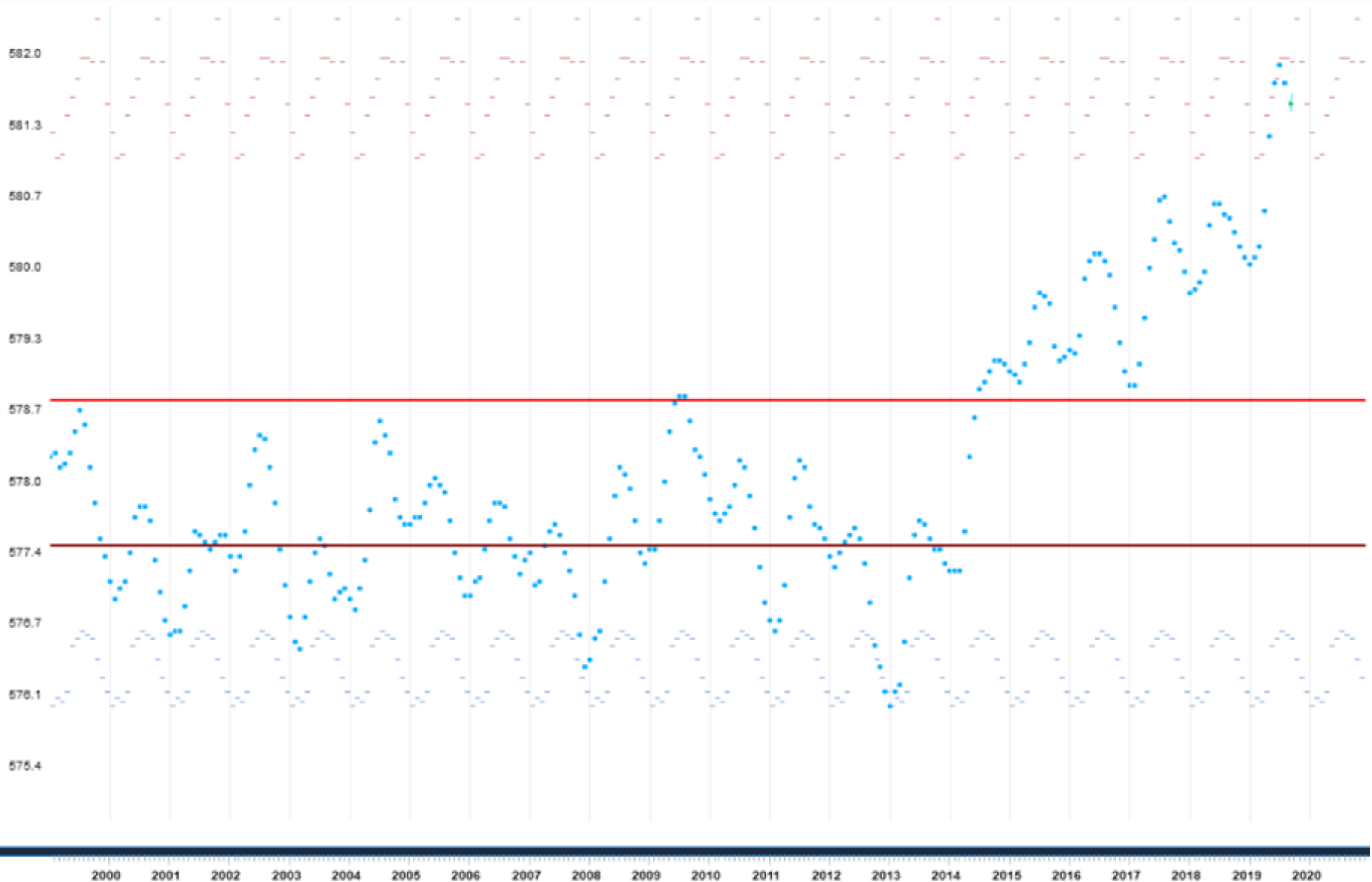
Wave Runup Schematic

From FEMA Great Lakes Coastal Guidelines "D.3" Update

Local/County-Level Activities

- Mapping tasks performed at the county level
- Nearshore wave transformations
- Episodic erosion
- Wave setup and runup
- Overland wave propagation

Lake Michigan Water Levels



Special Flood Hazard Areas (SFHAs)

Zone VE

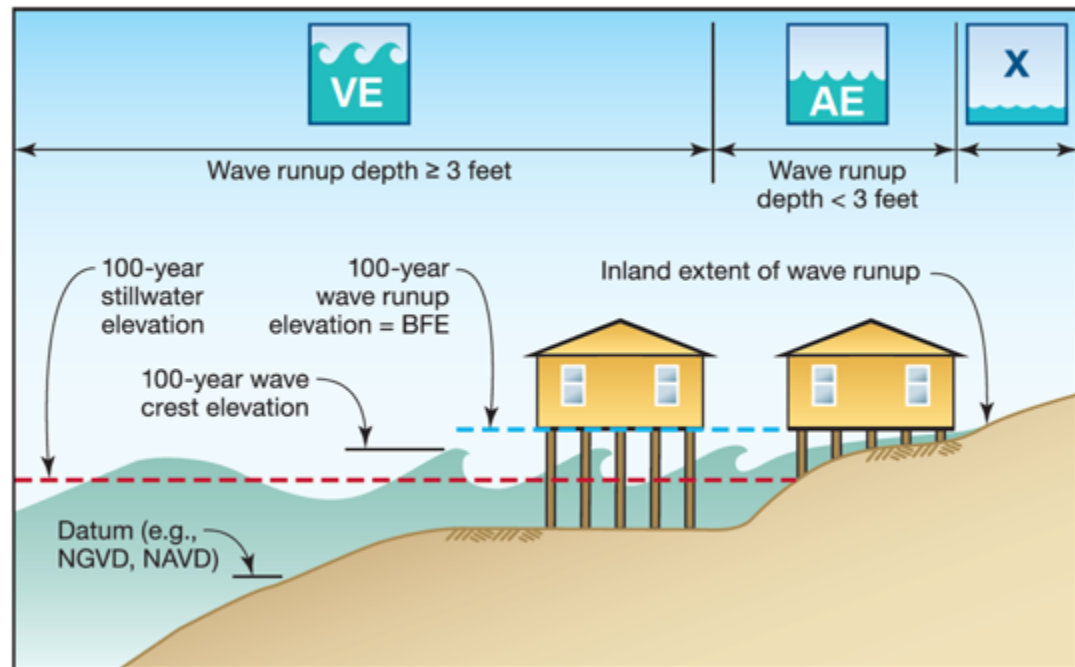
- Coastal high-hazard zone, where wave action and/or high-velocity water can cause structural damage during the 1-percent-annual-chance flood
- Wave heights or wave runup > 3 feet
- Subdivided into elevation zones, and Base Flood Elevations (BFEs) are assigned

Zone AE

- Applied in areas subject to lower wave energy or inundation by the 1-percent-annual-chance flood
- Wave heights or wave runup < 3 feet
- Subdivided into elevation zones, and BFEs are assigned

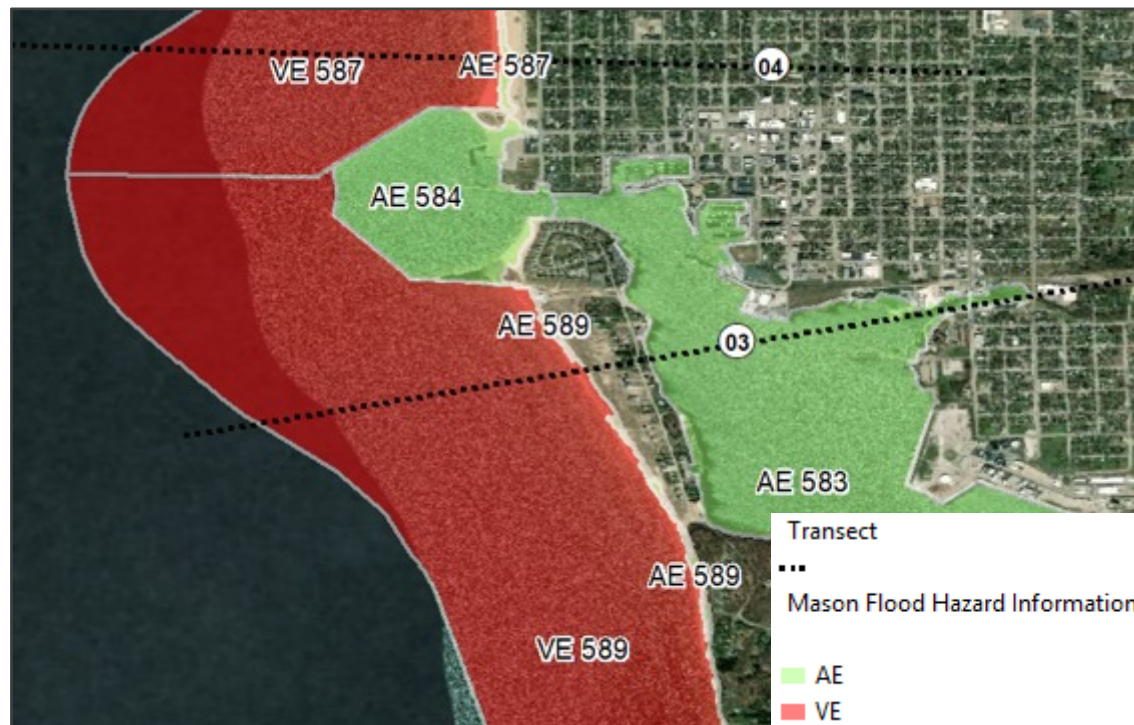
Zone AO

- Applied in areas of sheet flow and shallow flooding
- Given an associated depth instead of a BFE

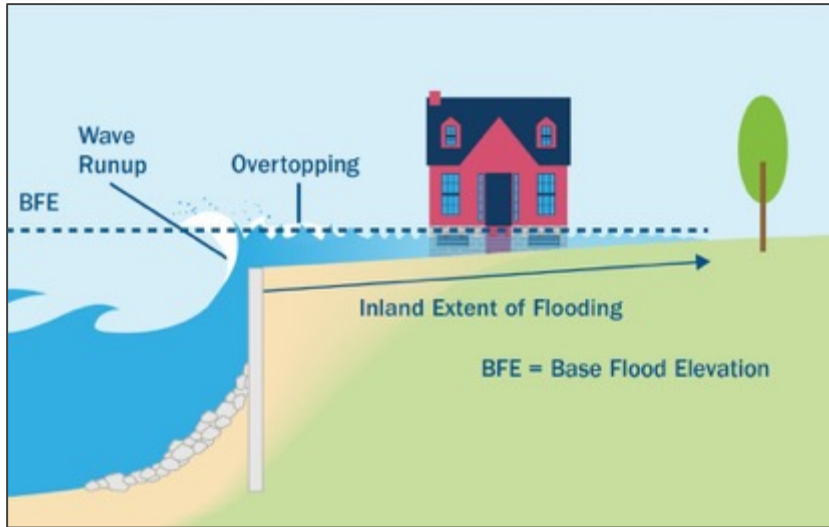


Wave Runup Mapping

- Wave runup is very sensitive to shoreline characteristics, especially slope
- Single Base Flood Elevation (BFE)
- Gutters perpendicular to the shore divide the BFEs
- Transitional zones capture changes in shoreline characteristics between transects



Wave Overtopping



- ▶ Wave overtopping occurs when the wave runup elevation exceeds the barrier's crest elevation
- ▶ When overtopping occurs, the zone behind the barrier is designated as:
 - AE if the landward slope is positive
 - BFE established based on runup elevation
 - AO if the landward slope is negative
 - Sheet flow depth established
- ▶ The overtopping rate determines VE splash zones and sheet flow depths

Summary of Mason County's Letter of Map Changes (LOMCs)

SOMA-1

PRELIMINARY SUMMARY OF MAP ACTIONS

Community: HAMLIN, TOWNSHIP OF Community No: 260134

2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	02-05-0174W	12/18/1992	LOT 31 OF HAMLIN NARROWS 6375 NORTH MAPLE DRIVE	2601340010B	26105C0129D
LOMA	05-05-960A	03/22/1995	LOTS 6 & 7, BLOCK 3 - BRIDGE'S RESORT 6626 NORTH GRACE AVENUE	2601340005B	26105C0129D
LOMA	04-05-A771A	11/03/2004	PORTION OF GOVERNMENT LOT 1, SECTION 3, T18N, R18W-7032 WEST ABRAHAMSON ROAD	2601340010B	26105C0227D
LOMA	05-05-2678A	05/12/2005	BRIDGE'S RESORT, BLOCK 2, LOT 5 - 6292 GRACE AVENUE	2601340005B	26105C0140D
LOMA	05-05-4908A	10/18/2005	TAMARAC HARBOR SUBDIV NO. 2, LOT 22 - 7213 WEST DAHLKE STREET	2601340010B	26105C0140D
LOMA	06-05-C018A	10/24/2006	PORTION OF SECTION 4, T18N, R18W - 1527 NORTH LAKESHORE DRIVE (M)	2601340010B	26105C0227D
LOMA	11-05-3721A	03/17/2011	A PORTION OF GOVERNMENT LOT 6, SECTION 2, TOWNSHIP 19 NORTH RANGE 18 WEST - 6395 MOUND STREET	2601340005B	26105C0135D
LOMA	11-05-4358A	05/10/2011	UNIT 10, WOODED LAKE ESTATES CONDOMINIUM - 1415 NORTH WOODED LAKE DRIVE	2601340010B	26105C0227D
LOMA	11-05-6841A	09/22/2011	A PORTION OF GOVERNMENT LOT 7, SECTION 2, T18N, R18W - 6018 WEST BARNHART ROAD	2601340005B	26105C0135D
LOMA	13-05-5432A	05/23/2013	1421 WOODED LAKE DRIVE	2601340010B	26105C0227D
LOMA	14-05-2780A	03/18/2014	LOTS 1 & 2, BUGG'S POINT - 5946 WEST MAPLE LANE	2601340005B	26105C0227D
LOMA	14-05-4636A	03/27/2014	LOT 13, ATMAN'S COURT SUBDIVISION - 6823 WEST ABRAHAMSON ROAD	2601340010B	26105C0227D
LOMA	15-05-0172A	11/13/2014	LOT 5, LINCOLN LAKE ESTATES SUBDIVISION - 1414 NORTH LAKE SHORE DRIVE	26105C0230C	26105C0227D
LOMA	15-05-0052A	11/18/2014	4555 NORTH LAKE SHORE DRIVE	26105C0140C	26105C0140D
LOMA	15-05-0415A	11/05/2014	2829 NORTH LAKEVIEW TAMARAC VILLAGE	26105C0140C	26105C0140D

Page 2 of 6

All LOMCs were addressed in the preliminary Summary of Map Actions (SOMA) and placed into one of four categories:

1. Incorporated
2. Not incorporated (validated)
 - LOMCs on revised panels
 - LOMCs on unrevised panels
3. Superseded
4. To be redetermined

Be sure to review the preliminary SOMA for completeness.

If you note a LOMC is missing from the list, submit the omission with your comments.

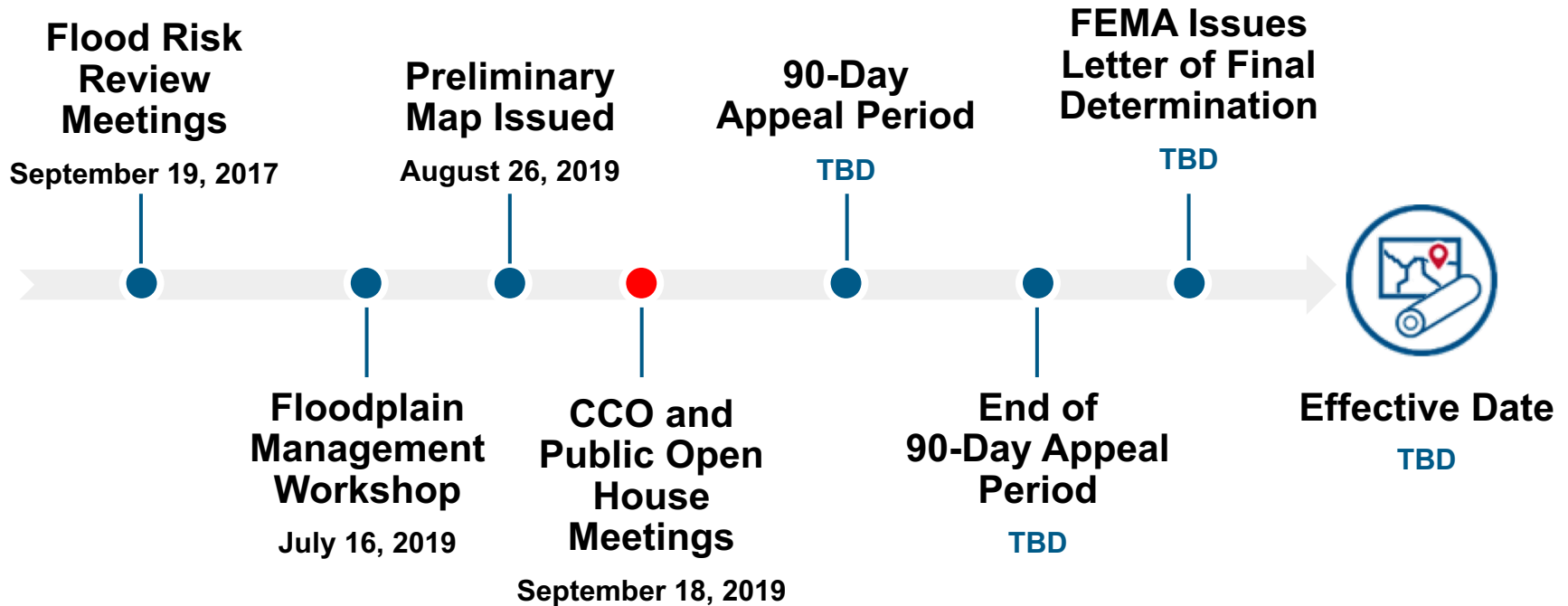
Next Steps in the Map Adoption Process



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Timeline for Mason County



4-Four-Step Pre-Adoption Process



**Inform the
Community**



**Gather Comments
and Additional Data**



Appeal Process



LFD Issued

#1: Inform the Community – Today's Open House

- ▶ **Viewing via paper maps or map viewer**
- ▶ **Opportunity to share program information with property owners**
- ▶ **Comment sheets collected**
- ▶ **Attendees notified as process moves forward**



#2: Gather Community Comments

- ▶ **Homeowners may choose to submit comments through community officials**
- ▶ **FEMA requests that community officials forward their initial round of comments to FEMA no later than September 30, 2019**

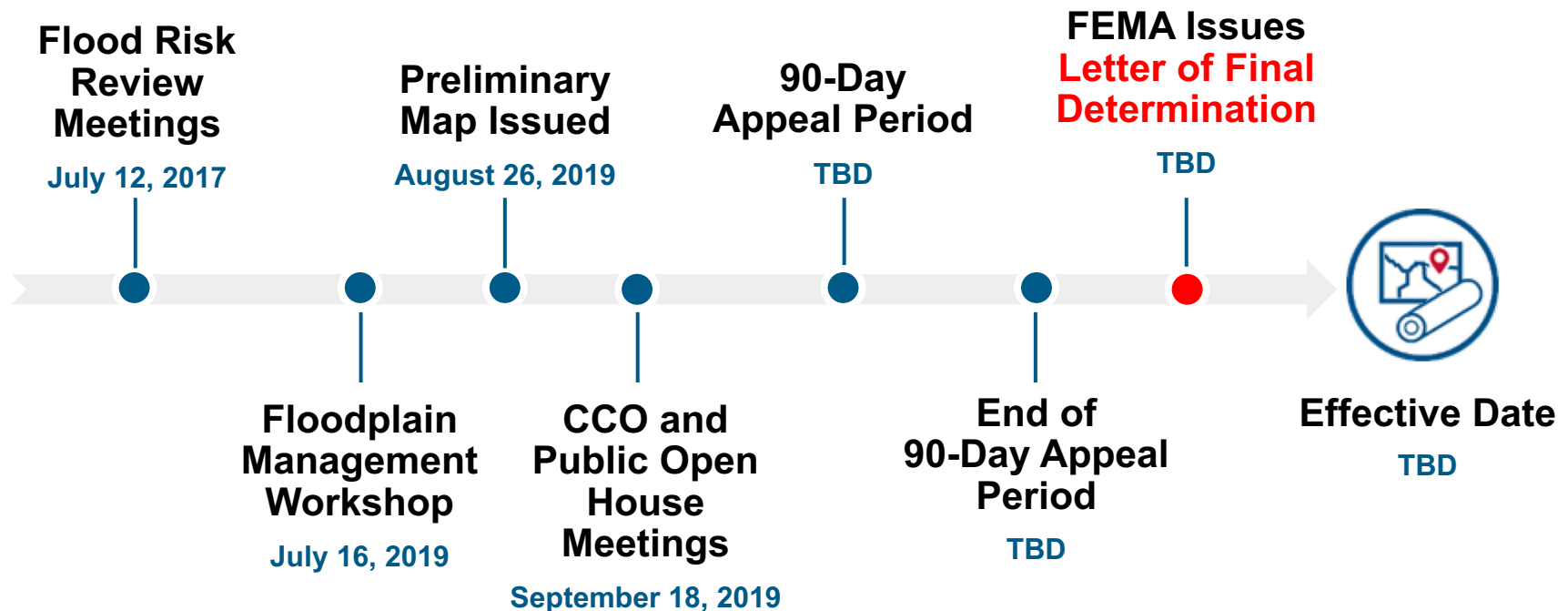


#3: Appeal Process

- ▶ **Appeal Period is 90 days**
- ▶ **Publication of notice in Federal Register**
 - Notification to communities by letter including local newspaper publications
- ▶ **All are welcome to submit information**
 - FEMA recommends directing comments through local community officials to provide a consolidated picture
- ▶ **Appeals should be submitted to STARR II or FEMA Region V**
 - Additional instructions will be provided to Community CEO
- ▶ **FEMA will evaluate all appeals and comments for resolution after the Appeal Period**



#4: Issuing the Letter of Final Determination



Understanding Floodplain Management Ordinance Requirements



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Participation in the National Flood Insurance Program

- ▶ **The NFIP is a voluntary program.**
- ▶ **Participation requires that communities adopt and enforce floodplain management regulations.**
- ▶ **The floodplain management regulations need to be based on the risk data provided by FEMA (the FIRM and FIS).**
- ▶ **Participation in the NFIP makes Federal flood insurance available to insure buildings and personal property inside buildings within your communities.**
- ▶ **Federally regulated lenders require flood insurance coverage for buildings in the SFHA that secure loans; insurance is also required as a condition of receiving Federal financial assistance to purchase, repair, improve, or rehabilitate buildings within the SFHA.**
- ▶ **Many forms of disaster assistance are either a type of Federal loan or other Federal financial assistance.**



Ordinance Adoption During Map Updates

Timeline Prior to Effective Date

- 6 months prior: FEMA 6-month LFD Letter
- 4 months prior: Draft Ordinance (suggested)
- 3 months prior: FEMA 90-day Reminder Letter
- 1 month prior: FEMA 30-day Reminder Letter

Community must update ordinance to reference the effective date of the FIRM & FIS report (or community may be suspended from NFIP) before the end of the 6-month period



Where to Find Minimum NFIP Requirements

- ▶ **NFIP Minimum Floodplain Management Standards are found in Part 60 of Title 44, Code of Federal Regulations.**
- ▶ **Coastal-specific standards are found in Part 60.3(e).**
- ▶ **In Michigan, pursuant to the Stille-DeRosset-Hale Single State Construction Code Act of 1972, the Michigan State Building Code applies throughout the State.**
- ▶ **With the community ordinance referencing the applicable FIRM and FIS, the Michigan Building Code meets NFIP minimum floodplain standards.**
 - 2015 I-Codes checklist: <https://www.fema.gov/media-library/assets/documents/100537>
 - 2018 I-Codes checklist: <https://www.fema.gov/media-library/assets/documents/156934>

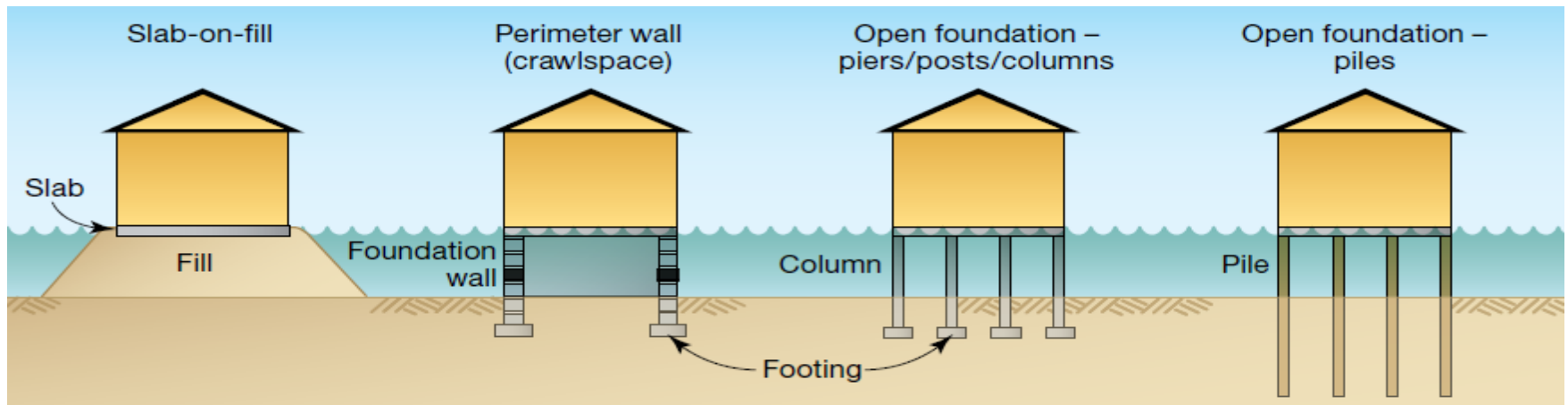
Differences in Development Requirements

A Zones

- Fill outside the floodway, or which can be shown to not cause a rise to the base flood elevation, allowed
- Fully-enclosed foundation wall (flood openings required) construction allowed
- Lowest floor elevated to or above the BFE
- As-built lowest floor elevation required to be on file with permit records

VE Zones (and AE zones to the water side of a LIMWA)

- Fill not allowed for structural support of buildings
- Open foundation on columns or piles free of obstructions or designed with break away walls
- Bottom of lowest horizontal structural member to or above BFE, with as-built elevation on file
- Professional Engineer or Architect shall certify the design, including wind loading, of the structure and be on file with the permit records



Understanding Flood Insurance



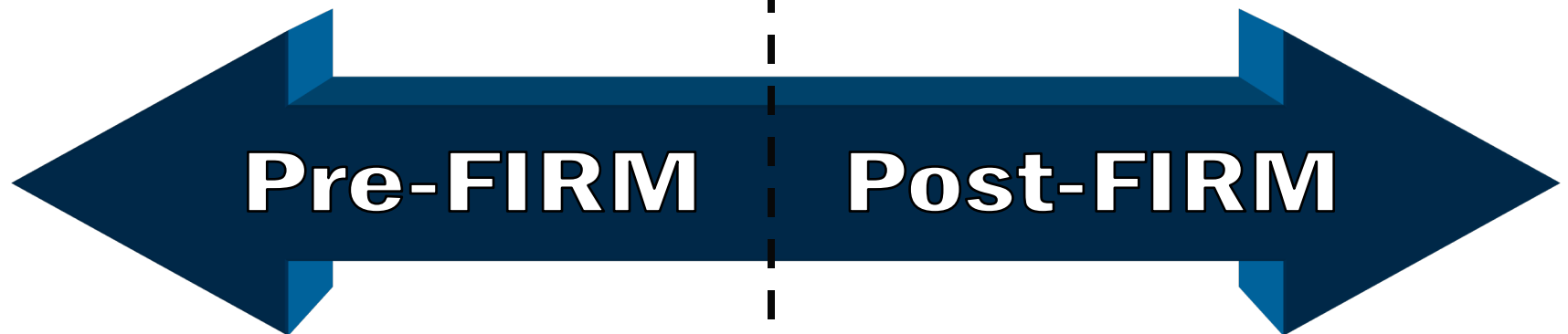
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Flood Insurance Basic Concepts

- Structures built on or before **December 31, 1974**, or before the effective date of the initial FIRM of the community, whichever is later.

- Structures built after **December 31, 1974**, OR on or after the effective date of the initial FIRM of the community, whichever is later.



Flood Insurance Basic Concepts

▶ Pre-FIRM (subsidized) rates

- For structures built before the first maps of the community
- Do not reflect the structure's true risk negatively or positively
- Based on building type, occupancy
- Subsidies are being phased out, with some categories increasing more quickly

▶ Post-FIRM (actuarial) rates

- Uses the structure's elevation information to determine risk
- Based on elevation difference between Base Flood Elevation and lowest floor
- Required for Post-FIRM structures, and optional for Pre-FIRM structures, if there is an elevation certificate

Effects of New Flood Zones on Flood Insurance

▶ The new FIRM may:

- Map a property into the SFHA for the first time
 - Lender may require them to get an insurance policy
- Remove a property from the SFHA
 - Lender may drop the insurance requirement
- Change the flood zone affecting property
 - From an “A” zone to a “VE” zone (or AE to AO, etc.)
 - Rating will not change unless the policy is allowed to lapse or the building is substantially improved
 - If the new zone results in a less costly premium, the policy can be endorsed to revise the rate to the new zone with a prorated refund for the difference for the remainder of the policy year. Insured needs to ask the AGENT to do this!

Insurance Rating and Product Possibilities

▶ Newly Mapped (Zone A, AE, AO, and AH)

- Pricing starts at Preferred Risk Rates - bundled standard Preferred Risk Policy for the first year
- Multiplier added after the first year
- Must be Newly Mapped into SFHA from previous FIRM
- Must have two or fewer losses from NFIP or disaster assistance

▶ Grandfathering

- Keeps lower rate zone and/or BFE

▶ Two Ways

- Continuous coverage (Pre & Post)
 - Coverage obtained prior and through a map change
- Built-in-compliance
 - **Post-FIRM ONLY**
 - Built in compliance with the map at the time
 - Not substantially improved later

Insurance Rating and Product Possibilities

▶ Newly Mapped

▶ Exceptions

- Can't be community's first FIRM
- Multi-unit buildings insured under the RCBAP
- Policy is first purchased more than 12 months after the effective date of the FIRM
- Building can't be altered/substantially improved

▶ Grandfathering (Standard)

▶ Exceptions

- Can't have lapse in coverage
- Building can't be altered/substantially improved

Risk Rating Redesign

To stay up-to-date with Risk Rating 2.0, and for the latest details, please visit www.fema.gov/nfiptransformation.



Resources for Insurance

▶ Floodsmart.gov

▶ FEMA.gov

Search Close X

Search anything on fema.gov GO

- Grandfathering
- Newly Mapped PRP
- Flood Insurance Reform

▶ Flood Insurance Manual

- <https://www.fema.gov/flood-insurance-manual>
- General Rules
- Newly Mapped
- Rating

▶ Flood Insurance Rate Maps

- www.msc.fema.gov

NFIP Floodplain Management and Insurance

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Hazard Mitigation Planning



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What is Hazard Mitigation?

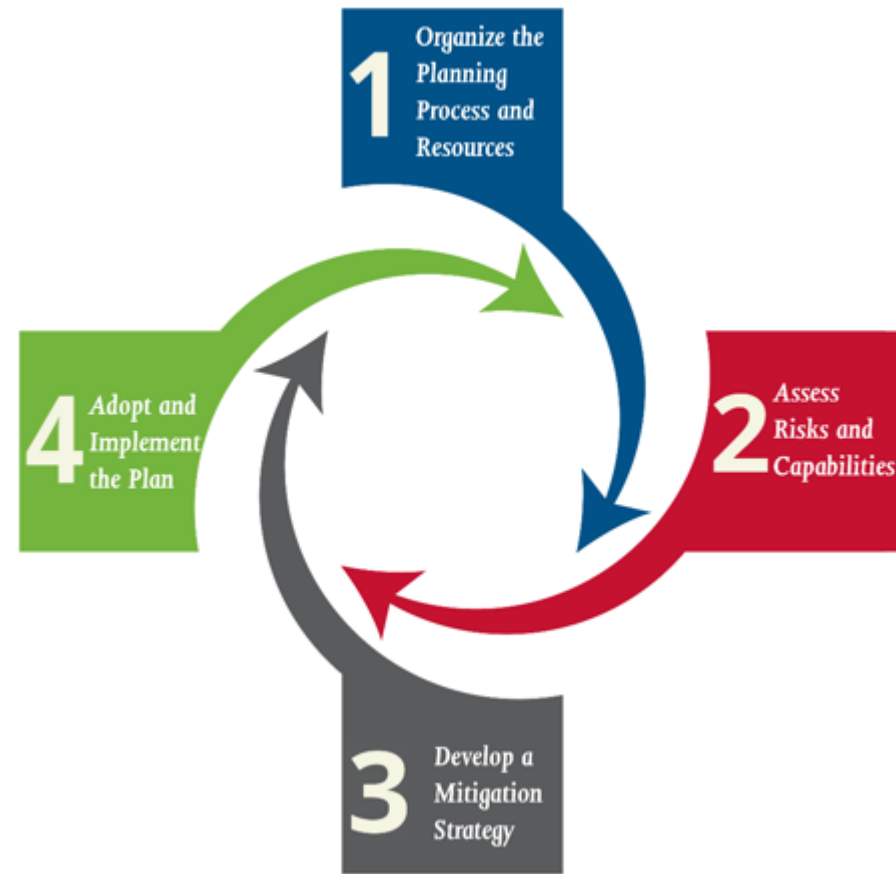
Any sustained action taken to reduce long-term risk to people and property from hazards and their effects.

Mitigation actions include:

- ▶ Removing existing structures from floodprone areas
- ▶ Elevating or floodproofing structures
- ▶ Stormwater management
- ▶ Floodwater storage and diversion
- ▶ Flood insurance
- ▶ Building, zoning, and floodplain management codes
- ▶ Wetland and riparian area protection
- ▶ Water/sanitary sewer system protective measures

Benefits of Hazard Mitigation Planning

- Increases public awareness and understanding of risk areas and vulnerabilities by engaging the whole community
- Provides eligibility for certain FEMA programs
- Builds partnerships with diverse stakeholders
- Identifies potential risk reduction measures
- Improves communication and sharing of risk data and related products to all levels of government and the public



Federal Planning Regulations

The Disaster Mitigation Act of 2000

- ▶ Establishes eligibility for FEMA Hazard Mitigation Assistance (HMA) programs
 - *Plan approval is a precondition for receiving HMA grants*
- ▶ Requires local governments to submit a plan to their State and FEMA for review

Title 44 Code of Federal Regulations (CFR) 201.6

- ▶ Publishes requirements for approval of local mitigation plans

Hazard Mitigation Assistance



Contact your State Hazard Mitigation Officer (SHMO) to learn more about the application process.

EMHSD Mitigation Contacts and More Information

Web: https://www.michigan.gov/msp/0,4643,7-123-72297_60152---,00.html

Phone: (517) 284-3745

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Eric Pratt

Hazard Mitigation Analyst

(517) 284-3987

pratte2@Michigan.gov

Want More Information?

Hazard Mitigation Planning: <https://www.fema.gov/hazard-mitigation-planning>

Hazard Mitigation Assistance (HMA): <https://www.fema.gov/hazard-mitigation-assistance>

Mitigation Planning Resources: <https://www.fema.gov/hazard-mitigation-planning-resources>



Question & Answer Session



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FEMA Engineering Library Data Requests

- ▶ Requests must be in writing to:

FEMA Engineering Library
 3601 Eisenhower Ave., Ste. 500
 Alexandria, VA 22304-6426

or

Fax: (703) 202-4090

- ▶ Request must include:

FIS Data Request Form
 Applicable Fees
 Payment Information Form

- ▶ Once the research has been completed, an information specialist will contact you to discuss the path forward.



Federal Emergency Management Agency
 Washington, D.C. 20472

Flood Insurance Study (FIS) Data Requests

The Federal Emergency Management Agency (FEMA) has identified seven categories into which requests for Flood Insurance Study (FIS) backup (i.e., technical and administrative support) are separated. These categories and their associated fees are below:

Requests for Flood Insurance Backup Data	Fee
1. Portable Document Format (PDF) or Diskettes of hydrologic and hydraulic backup data for current or historical FISs	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour.
2. PDF or Mylar copies of topographic mapping developed during FIS process	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour.
3. PDF of survey notes developed during FIS process	\$300, plus a \$93 per-case surcharge fee to recover the cost of library maintenance and archiving. For larger requests that require more than 4 hours of research, additional hours will be charged at \$40 per hour.
4. PDF of individual Letters of Map Change (LOMCs)	\$40 for first letter; \$10 for each additional letter in the same request. Requesters will be notified about availability of the data and the fees associated with the requested data.
5. PDF of preliminary map panels	\$35 for first panel; \$2 for each additional panel in the same request. Requesters will be notified about availability of the data and the fees associated with the requested data.
6. DVDs of Digital Line Graph files, FIRM files or Digital LOMR attachment files	\$150 per county or Digital LOMR attachment shape file. Requesters will be notified about availability of the data and the fees associated with the requested data.
7. Computer diskettes and user manuals for FEMA computer programs	\$25 per copy. Requesters will be notified about availability of the data and the fees associated with the requested data.

As shown in the table above, for Categories 1-3, an initial fee of \$300 is required to initiate the request and required before the requested data will be provided. If the data requested are available and the request is not cancelled, the final fee is calculated as a sum of the standard per-product charge plus a per-case surcharge of \$93, to help recover library maintenance and archiving costs. The total costs of processing requests in Categories 1- 3 will vary based on the complexity of the research involved in retrieving the data and the volume and medium of the data to be reproduced and distributed. The initial flat fee will be applied against the total costs to process the request, and FEMA will invoice the requester for the balance plus the per-case surcharge before the data are provided. No data will be provided to a requester until all required fees have been paid.

For Categories 4- 7, there is no initial fee to initiate a request for data. Requesters will be notified about the availability of, and the fees associated with, the requested data.



Questions and Additional Information

Visit:

www.greatlakescoast.org

www.fema.gov/preliminaryfloodhazarddata

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**We Hope You Will Stay for
the Open House**



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