



FEMA

# LOCAL OFFICIALS' MEETING

## Milwaukee County- Milwaukee River Watershed and Coastal Study Map Update

MILWAUKEE COUNTY, WISCONSIN

October 11, 2022

**RiskMAP**  
Increasing Resilience Together



# Zoom Meeting Housekeeping

- Please enter the organization you belong to in the group chat or to Chad Heimerl so that we have a record of all stakeholders who attended
- If you were not on the original invite and would like to keep updated, please also include your e-mail with your organization in the chat.
- You are muted and video turned off upon entry
- If you wish to ask a question, raise your hand or type it in chat (to everyone or to Chad Heimerl)

# Welcome & Introduction

- Risk MAP Project Team, Wisconsin Department of Natural Resources (WDNR)
  - Emily Szajna - Project Lead
  - Brian Cunningham - NFIP Coordinator
  - Chad Heimerl - Floodplain Engineer
  - Chris Olds - State Floodplain Engineer
  - Michelle Hase - Regional Engineer
  - Tanya Lourigan - Dam Safety/Floodplain Section Supervisor
  - Jesse Papez - GIS Data, Analysis & Integration Section Supervisor

# Welcome & Introduction

- Federal Emergency Management Agency (FEMA)
  - Munib Ahmad – Region V Engineer
  - Ken Hinterlong – Region V Engineer
  - Frank Shockey – Region V Senior NFIP Specialist
  - Cadence Peterson – Region V Planner
  - Nicholas Bruscato – Emergency Management Specialist

# Meeting Agenda

- RiskMAP Overview and Project History
- Great Lakes Coastal Study approach
- NFIP & Floodplain Management Overview
- Preliminary Products Review
- LOMCs & SOMA
- Next Steps/Map Adoption

# What is Risk MAP?

FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) program involves collaboration with State, Local, and Tribal entities to deliver quality data that increases public awareness and leads to action that reduces risk to life and property

- Deliver quality data
- Increase public awareness of flood risk
- Encourage local/regional actions that reduce risk



# Risk MAP Project Benefits

- Flood risk products and flood hazard maps that are:
  - Developed by FEMA in collaboration with communities
  - Based on the best available data from the community and latest technologies
  - Conducted by watershed
  - Strengthened by partnerships
- Risk MAP tools and data can be used to:
  - Create or improve your Hazard Mitigation Plans
  - Make informed decisions about development, ordinances, and flood mitigation projects
  - Communicate with citizens about flood risk



RiskMAP Project Lifecycle

Source: <https://www.fema.gov/riskmap-flood-project-lifecycle>

# FEMA RiskMAP

Mapping, Assessment, and Planning



Flood Risk Project Production and Mapping Activities

Source: Fema Guidance for Stakeholder Engagement, Project Planning Phase (Nov 2015)

# Project History

## Milwaukee River Watershed

2013  
February 2014  
2014-2019  
August 2019

Project Planning  
Discovery  
Data Development  
Flood Risk Review/Resilience

## Great Lakes Coastal Study

2010  
February 2013  
2013-2018  
August 2017

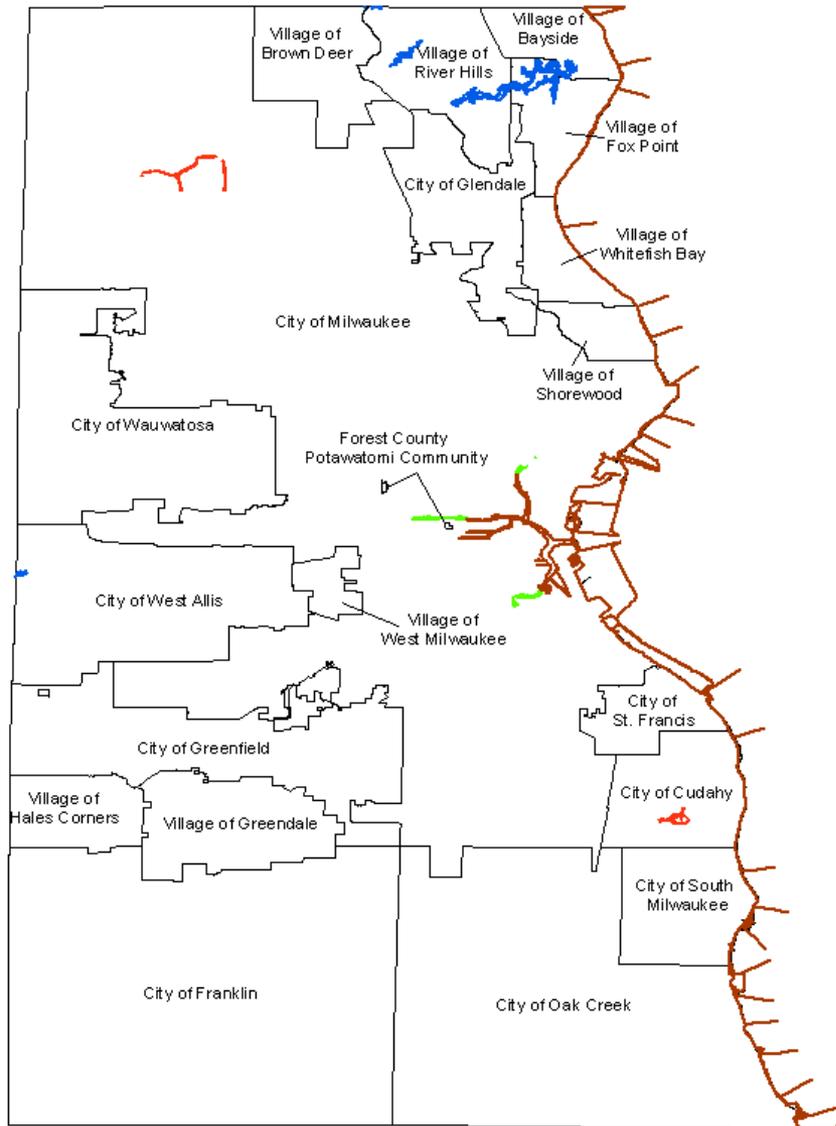
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## Milwaukee Update

**Preliminary Map Release:** June 30, 2022

- Download here: <https://www.fema.gov/preliminaryfloodhazarddata>
  - *FEMA Flood Map Change Viewer:* <https://msc.fema.gov/fmcbv>
- Local Officials Meeting/Public Open House - October 11, 2022

## Revised Studies in Milwaukee County



## Revised Studies

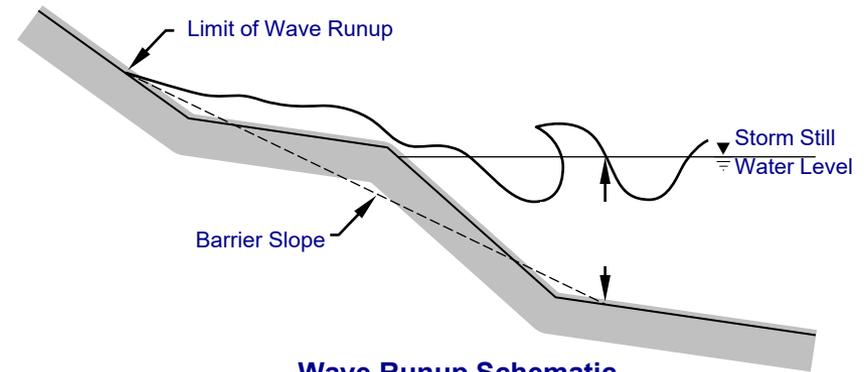
### Legend

- Zone AE Detailed Studies
- Revised Approximate (Zone A) Studies
- Lake Michigan Coastal Update
- Lake Michigan Coastal-Riverine Redelineations
- Municipal Boundaries

# The Great Lakes Coastal Flood Study Approach

## Regional Study Approach

- Lakewide water level and wave analysis
  - 150 storms from 1960 to 2009
  - Modeling conducted by STARR in 2016
- Greater consistency in assumptions
- Reduces number of boundary conditions



**Wave Runup Schematic**  
from FEMA Great Lakes Coastal Guidelines "D.3" Update

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

# Coastal Flood Hazard Modeling Overview

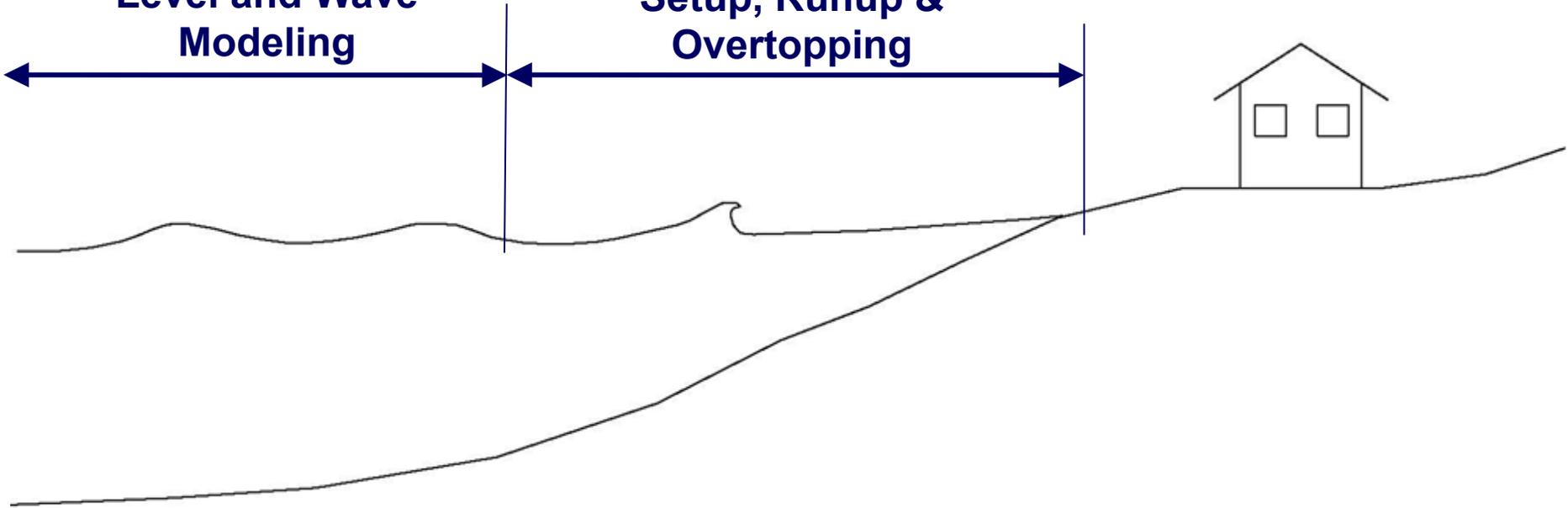
## *Lake-Wide Variation*

**Step 1: Offshore Water Level and Wave Modeling**

## *Local Variation*

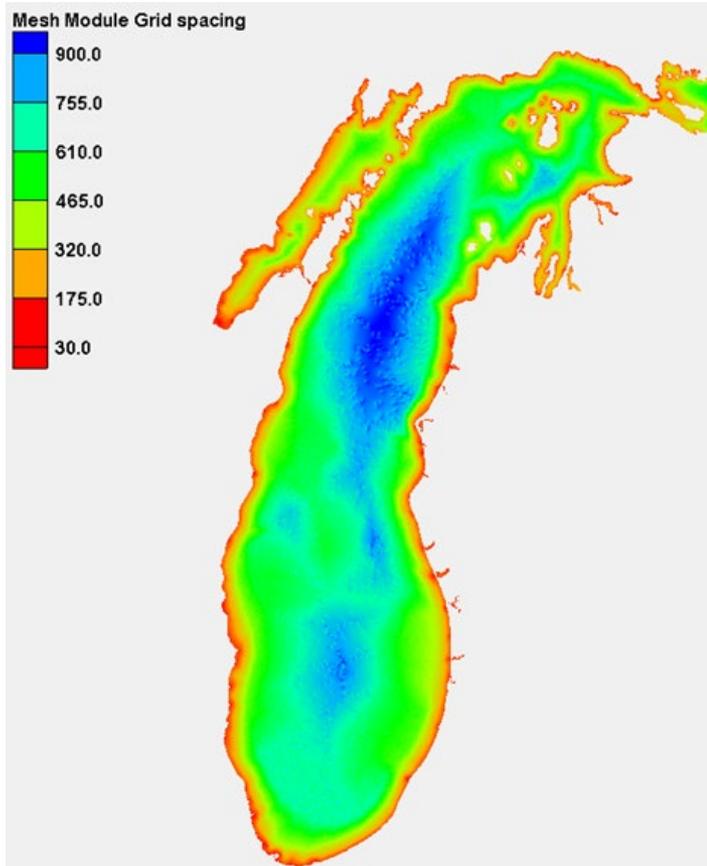
**Step 2: Nearshore Wave Setup, Runup & Overtopping**

**Step 3: Floodplain Mapping**

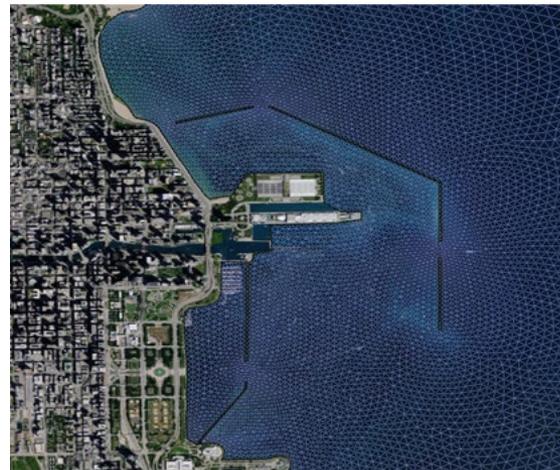


# Offshore Water Level and Wave Modeling

## ADCIRC+SWAN Mesh

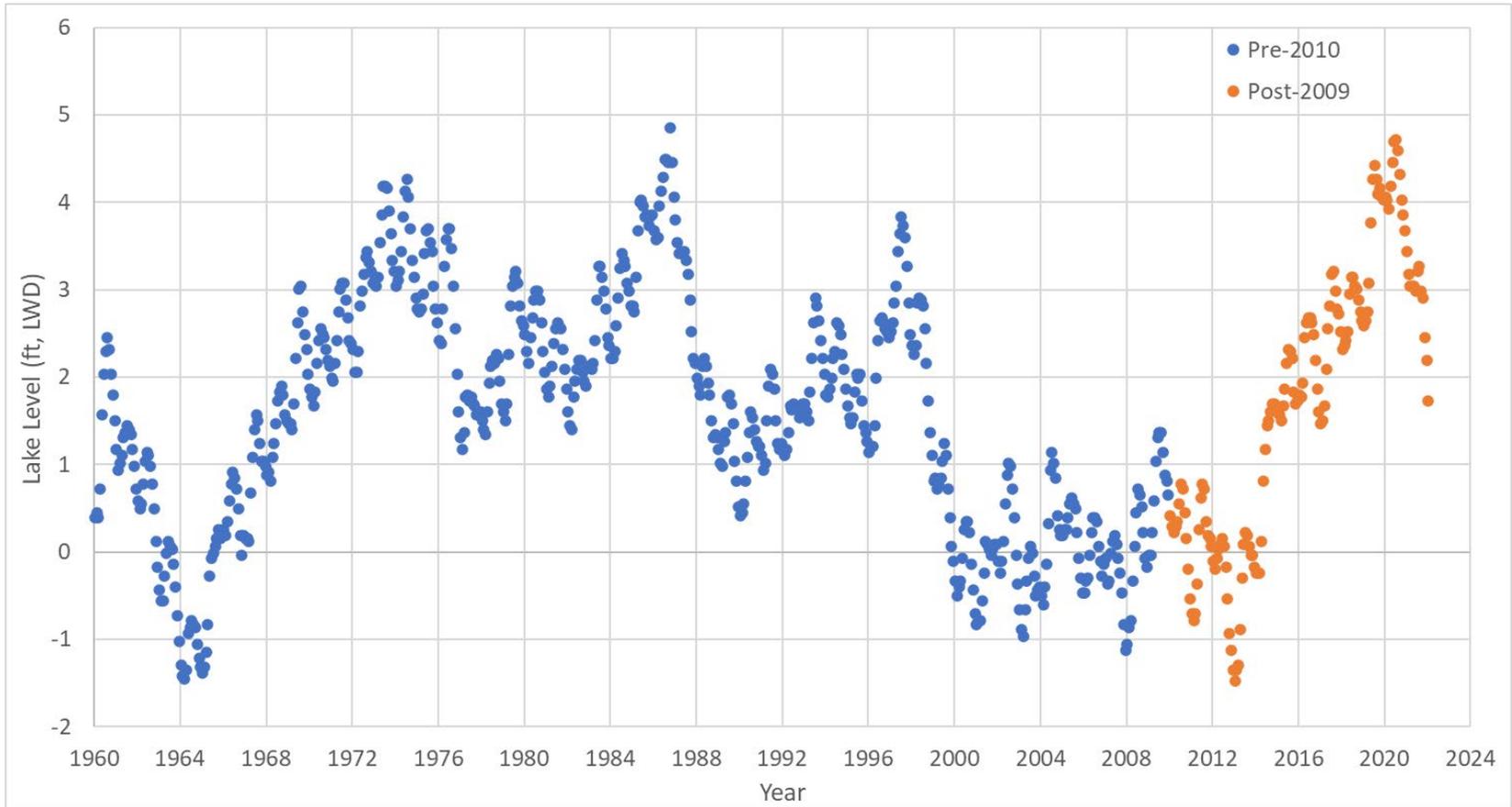


- ▶ Resolution as Fine as 10 m Along Complex Shoreline Features including Jetties, Breakwaters, Inlets, and Natural Shoals

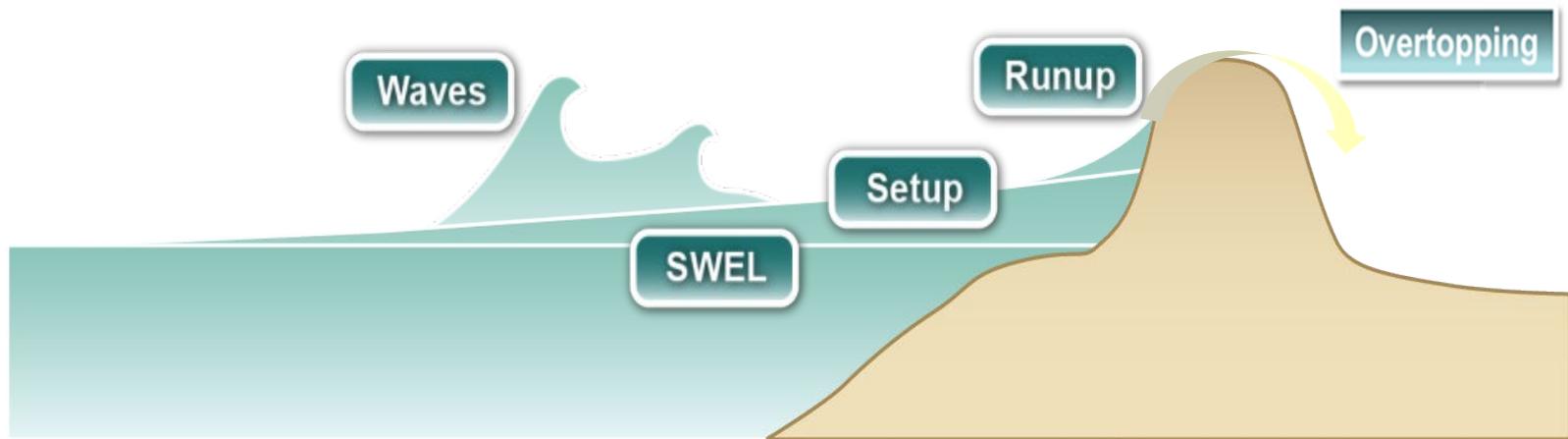




# Lake Michigan Water Levels



# Measuring Coastal Base Flood Elevation



SWEL = Stillwater Elevation (storm surge level)  
TWEL = Total Water Elevation (SWEL + wave effects)

# Special Flood Hazard Areas (SFHAs) - Coastal

## 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  $\geq 3$  feet
- Subdivided into elevation zones, and BFEs are assigned

## Zone AE

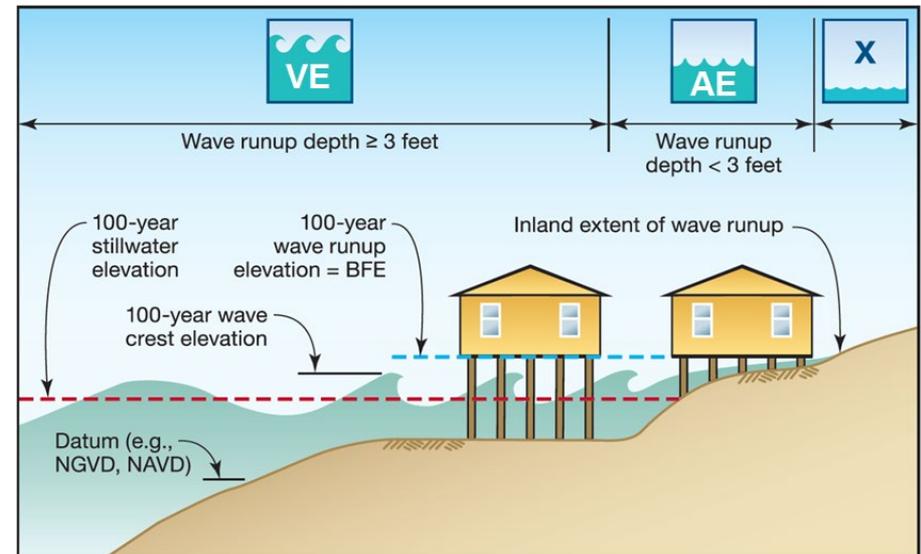
- Applied in areas subject to lower wave energy or inundation by the 1-percent-annual-chance flood
- Wave heights or wave runup  $< 3$  feet
- Subdivided into elevation zones, and BFEs are assigned

## Zone AO

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

## Zone AH

- Applied in areas of ponding
- Assigned 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
- Runup is mapped to elevation associated with BFE, unless overtopping occurs
- VE transitions to AE where runup elevation (BFE) is less than 3 feet above ground elevations



# 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
  - AH if the landward slope is negative and flow is trapped behind a barrier
    - BFE established
- The overtopping rate determines VE splash zones and sheet flow depths

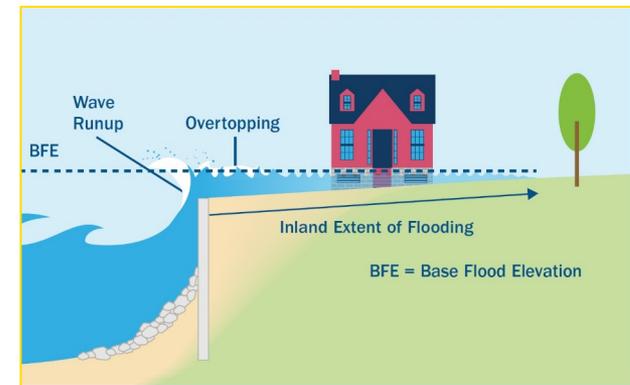


Photo: Green, M. Spencer. AP Photo. 2012.

[http://journalstar.com/ap/business/two-story-waves-on-great-lakes-halt-shipping/article\\_bcf2bb34-b528-52f5-8cd4-0c57e7ea8922.html](http://journalstar.com/ap/business/two-story-waves-on-great-lakes-halt-shipping/article_bcf2bb34-b528-52f5-8cd4-0c57e7ea8922.html)

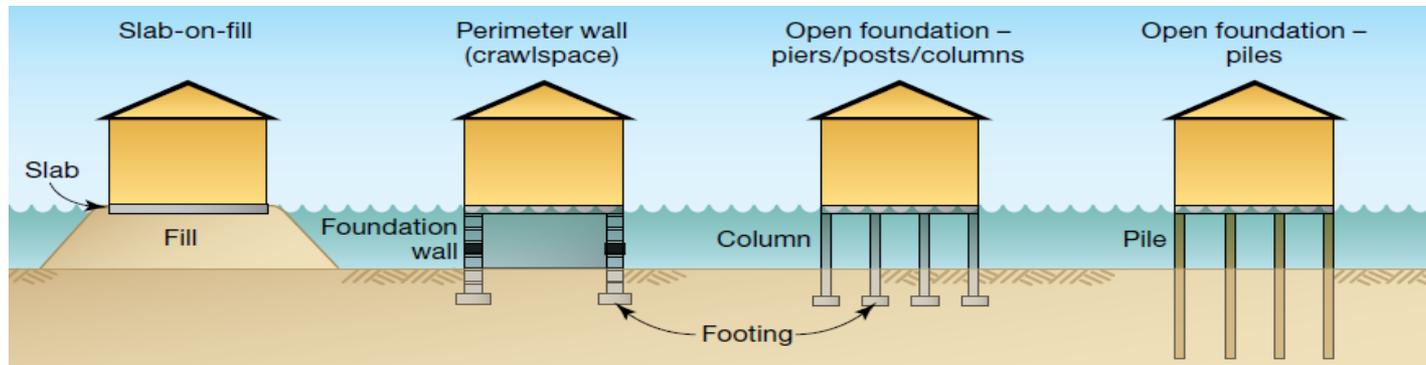
# Differences in Development Requirements

## A Zones

- Fill is allowed outside the floodway, or if it can be shown not to cause a rise in the BFE.
- Fully enclosed foundation walls (flood openings required) are allowed.
- The lowest floor must be elevated to or above the BFE.
- An as-built lowest floor elevation is required to be on file with the permit records.

## VE Zones (and AE Zones on the water side of a LiMWA)

- Fill is not allowed for structural support of buildings.
- Only open foundations on columns or piles, free of obstructions, or breakaway walls are allowed below the BFE.
- Bottom of lowest horizontal structural member to or above BFE, with an as-built elevation on file.
- A Professional Engineer or Architect shall certify the design of the structure, including wind loading, and that must be on file with the permit records.



# The National Flood Insurance Program (NFIP)

- Created by the National Flood Insurance Act of 1968
- Participation is **voluntary**
  - Adopt and enforce regulations
  - Eligible for flood insurance
- **Benefits** of participation:
  - Flood insurance
  - Grants and loans
  - Disaster assistance
  - Federally-backed mortgages



# NFIP Goals

- Reduce the loss of life and property caused by flooding
- Reduce rising disaster relief costs caused by flooding
- Maintain the natural and beneficial functions of the floodplains
- Minimize business interruptions and other economic disruptions



Sparta, 1899: On the night of June 11-12, an intense storm sent all local streams and rivers over their banks, washing out roads, bridges, and cultivated fields; there was no loss of life. [Wisconsin Centennial Story of Disasters and Other Unfortunate Events (Madison, 1948)]

# Accomplishing NFIP Goals

- Publish maps - identify risk
- Educate the public on their own risk
- Provide federally-backed flood insurance coverage
- Encourage development away from the flooding risks and minimize the damage potential to flooding through floodplain management



Trempealeau County

# Basic NFIP Regulations

- Ensure that all proposed **development** is reasonable 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.



Sauk  
County  
2008



Jefferson  
County  
2008

# Flood Insurance vs. Disaster Assistance

## Flood Insurance

A policyholder is in control.  
Flood insurance claims are paid even if a disaster is not declared by the President.

There is no payback requirement.

Flood insurance policies are continuous, and are not non-renewed or canceled for repeat losses.

More than 20% of NFIP claims come from outside of mapped Special Flood Hazard Areas.

## Disaster Assistance

Most forms of federal disaster assistance require a presidential declaration.

The most common form of federal disaster assistance is a loan, which must be paid back with interest.

The duration of a Small Business Administration disaster home loan could extend to 30 years



# Flood Insurance 101

- Homeowners insurance does not cover flooding
- Almost everyone in a participating community of the NFIP can buy flood insurance
- Available to homeowners, business owners, renters, condo unit owners, and condo associations
- Sold through private insurance companies and agents, or directly through the NFIP
- Claims are paid regardless of disaster declaration
- No payback requirement



# Insurable by the NFIP

- Walled and roofed structures principally above ground
- Manufactured homes or travel trailers, if anchored to a permanent foundation
- Contents of structure (available to owners and renters)
- Building in the course of construction

# Not Insurable by the NFIP

- Buildings completely over water
- Unanchored manufactured homes
- Motorized vehicles
- Gas and liquid storage tanks outside buildings
- Buildings principally below ground
- Machinery and equipment in the open
- Swimming pools, hot tubs, etc.

# NFIP Limits of Coverage

## How much flood insurance coverage is available?

Flood coverage limits for a standard flood policy are:

Coverage Type	Coverage Limit
One to four-family structure	\$250,000
One to four-family home contents	\$100,000
Other residential structures	\$500,000
Other residential contents	\$100,000
Business structure	\$500,000
Business contents	\$500,000
Renter contents	\$100,000

# NFIP-Risk Rating 2.0

FEMA is updating their flood insurance rates through a new pricing methodology called Risk Rating 2.0, starting Oct. 1, 2021.

What is changing:

- Reduce complexity
- Simplifying the quote process
- Increasing mitigation investment
- Assessing and reflecting more information on flood hazards
- Reflecting prior NFIP claims and factoring replacement cost value to calculate a premium
- More information: <https://www.fema.gov/flood-insurance/risk-rating>

# Mandatory Purchase Requirement

## Flood Disaster Prevention Act of 1973

- Flood insurance purchase is required to make, increase, extend or renew any loan secured by structure in SFHA
- Flood insurance required for term of loan

## Flood Insurance Reform Act of 1994

- Established penalties for lender non-compliance
- Requires lenders to review revised FIRMs
- Requires notification and mandatory purchase if revised FIRM shows structure in SFHA
- If escrow account is established, requires escrow for flood insurance



# Preliminary SOMA

- A Summary of Map Actions (SOMA) documents previous Letters of Map Change (LOMC) actions that will be superseded, incorporated, or revalidated when the revised FIRM panels become effective:

- Letters of Map Amendment (LOMAs)
- Letter of Map Revision based on fill (LOMR-F)
- Letters of Map Revision (LOMRs)

SOMA-1

## PRELIMINARY SUMMARY OF MAP ACTIONS

Community: SOUTH MILWAUKEE, CITY OF

Community No: 550283

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the effect of the enclosed revised FIRM panel(s) on previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs), Letter of Map Revision based on Fill (LOMR-Fs), and Letters of Map Amendment (LOMAs)).

### 1. LOMCs Incorporated

The modifications effected by the LOMCs listed below have been reflected on the Preliminary copies of the revised FIRM panels. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
			NO CASES RECORDED		

### 2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below are either not located on revised FIRM panels, or have not been reflected on the Preliminary copies of the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

#### 2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	11-05-5418A	08/14/2011	LOTS 11&12 AND A PORTION OF LOTS 10, 13&D, BLOCK 4, MANUFACTURER'S ADDITION -- 512 PARK AVENUE	55079C0188E	55079C0188F
LOMA	15-05-3199A	04/10/2015	MANUFACTURERS ADDITION TO SOUTH MILWAUKEE, BLOCK 3, LOTS 19, 20 AND 21 -- 600 PARK AVENUE	55079C0188E	55079C0188F
LOMA	16-05-5608A	08/08/2016	MANUFACTURER'S ADDITION, BLOCK 4, LOT 9 & A PORTION OF LOTS 8, 10 & D -- 510 PARK AVENUE	55079C0188E	55079C0188F

#### 2B. LOMCs on Unrevised Panels

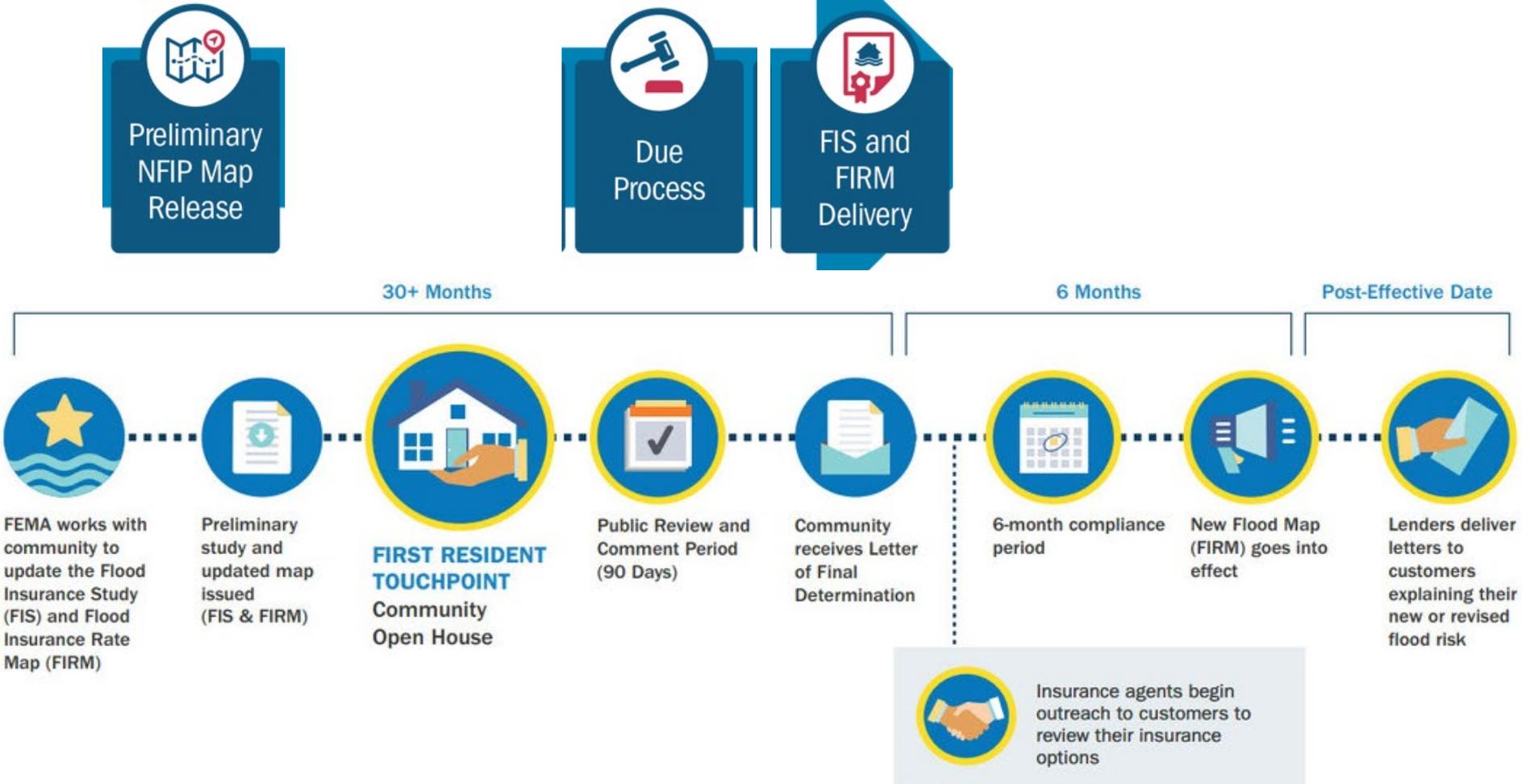
LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
			NO CASES RECORDED		

# Letter of Map Change (LOMC)

Page 1 of 2		Date: November 06, 2020		Case No.: 20-05-5042A		LOMA		
 <b>Federal Emergency Management Agency</b> Washington, D.C. 20472								
<b>LETTER OF MAP AMENDMENT DETERMINATION DOCUMENT (REMOVAL)</b>								
COMMUNITY AND MAP PANEL INFORMATION				LEGAL PROPERTY DESCRIPTION				
COMMUNITY		VILLAGE OF HALES CORNERS, MILWAUKEE COUNTY, WISCONSIN		Lot 1, as shown on Certified Survey Map No. 710 recorded as Document No. 4336004, in Reel 373, Images 1344, 1345, and 1346, in the Office of the Register of Deeds, Milwaukee County, Wisconsin				
COMMUNITY NO.:		550524						
AFFECTED MAP PANEL NUMBER:		55079C0133E						
DATE:		9/26/2008		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 42.942209, -88.055622				
FLOODING SOURCE: NORTHWEST BRANCH WHITNALL PARK CREEK				SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83				
<b>DETERMINATION</b>								
LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
1	--	C.S.M. No. 710	5609 South 114th Street	Structure	X (unshaded)	--	789.6 feet	--
<b>Special Flood Hazard Area (SFHA)</b> - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).								
<b>ADDITIONAL CONSIDERATIONS</b> (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)								
PORTIONS REMAIN IN THE FLOODWAY STATE LOCAL CONSIDERATIONS								
<p>This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Amendment for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the structure(s) on the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document amends the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.</p> <p>This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.</p>								
 Luis V. Rodriguez, P.E., Director Engineering and Modeling Division Federal Insurance and Mitigation Administration								

- Letter of Map Amendment (LOMA)
  - A letter from FEMA stating that an existing structure or parcel of land that has not been elevated by fill would not be inundated by the 1-percent-annual-chance flood.
  
- Letter of Map Revision (LOMR)
  - A letter from FEMA officially revising the effective FIRM to show changes to floodplains, floodways, or flood elevations.

# Next Steps



# Due Process Phase

Proposed Flood Hazard Determination  
published in Federal Register

Community CEO notified via certified letter of upcoming  
newspaper notice and Appeal Start

Proposed Flood Hazard Determination  
published in local newspaper

90-day appeal/comment period opens

Resolve appeal/comments

# 90-Day Appeal Period

- Community (or individuals via their community) may appeal areas:
  - Areas showing new or revised BFEs
  - Areas where there is a change in the Special Flood Hazard Areas (SFHA)
  - Areas showing new or revised SFHA (increase or decrease)
  - Areas showing new or revised regulatory Floodway boundaries (increase or decrease)

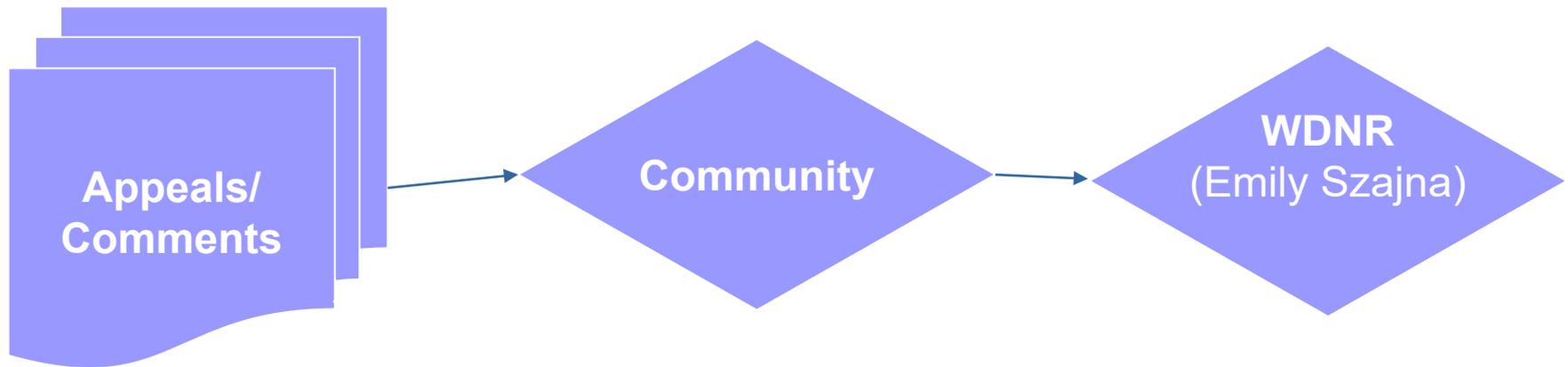
# Requirements for Appeal

- Data believed to be better than those used in original analysis
  - Documentation for source of new data
  - Proof that new topo data meets FEMA accuracy standards
- Explanation of the error or misapplication of methodology
- Revised hydrologic and/or hydraulic analysis
- Revised flood profiles, floodway data tables and Summary of Discharges table
- Revised floodplain and floodway mapping

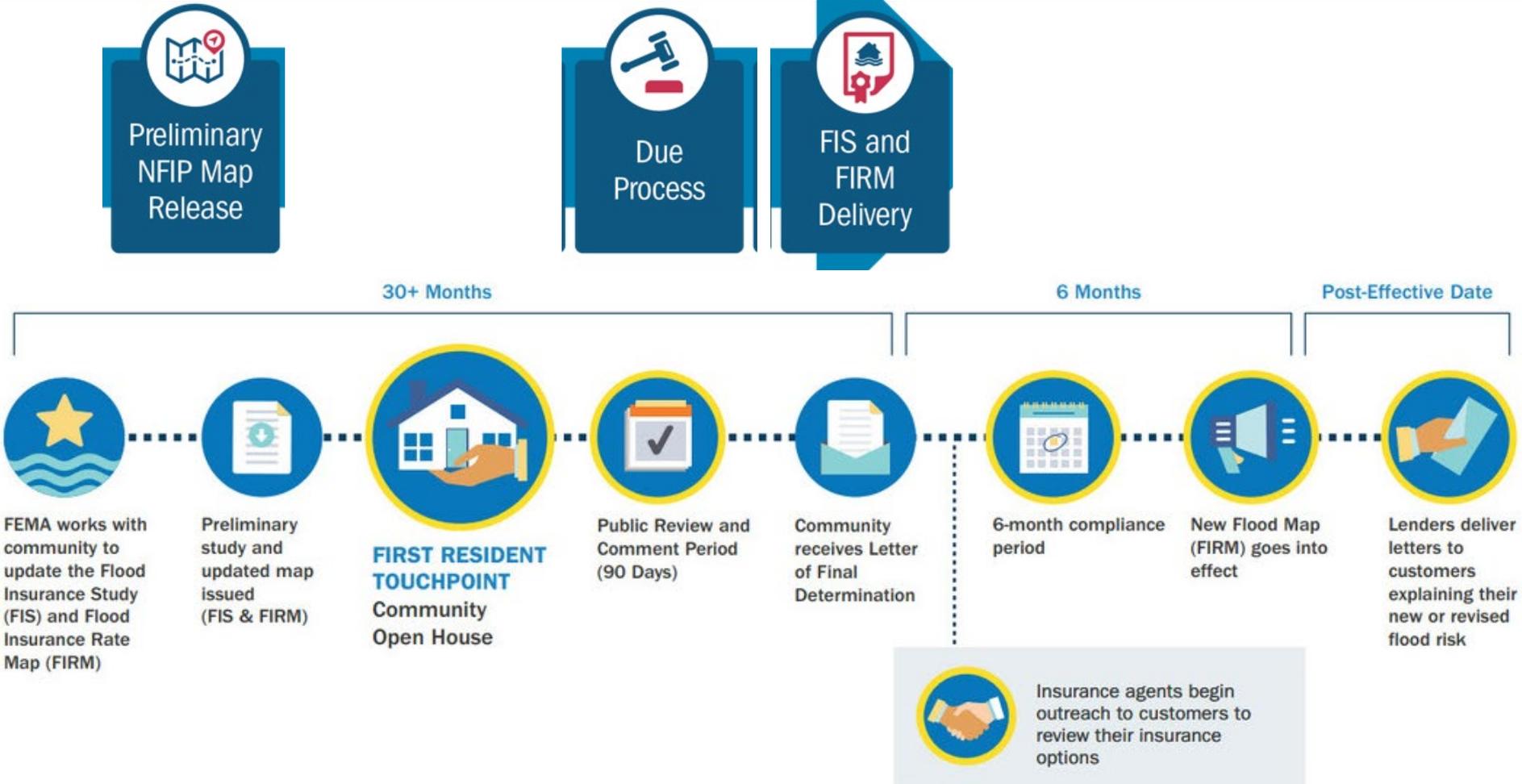
# Comments

- All other challenges to the maps are considered comments.
  - Corporate limit revisions;
  - Road name errors and revisions;
  - Base map errors;
  - Requests that changes effected by a LOMA, LOMR-F, or LOMR be incorporated; and
  - Other possible omissions or potential improvements to the mapping.

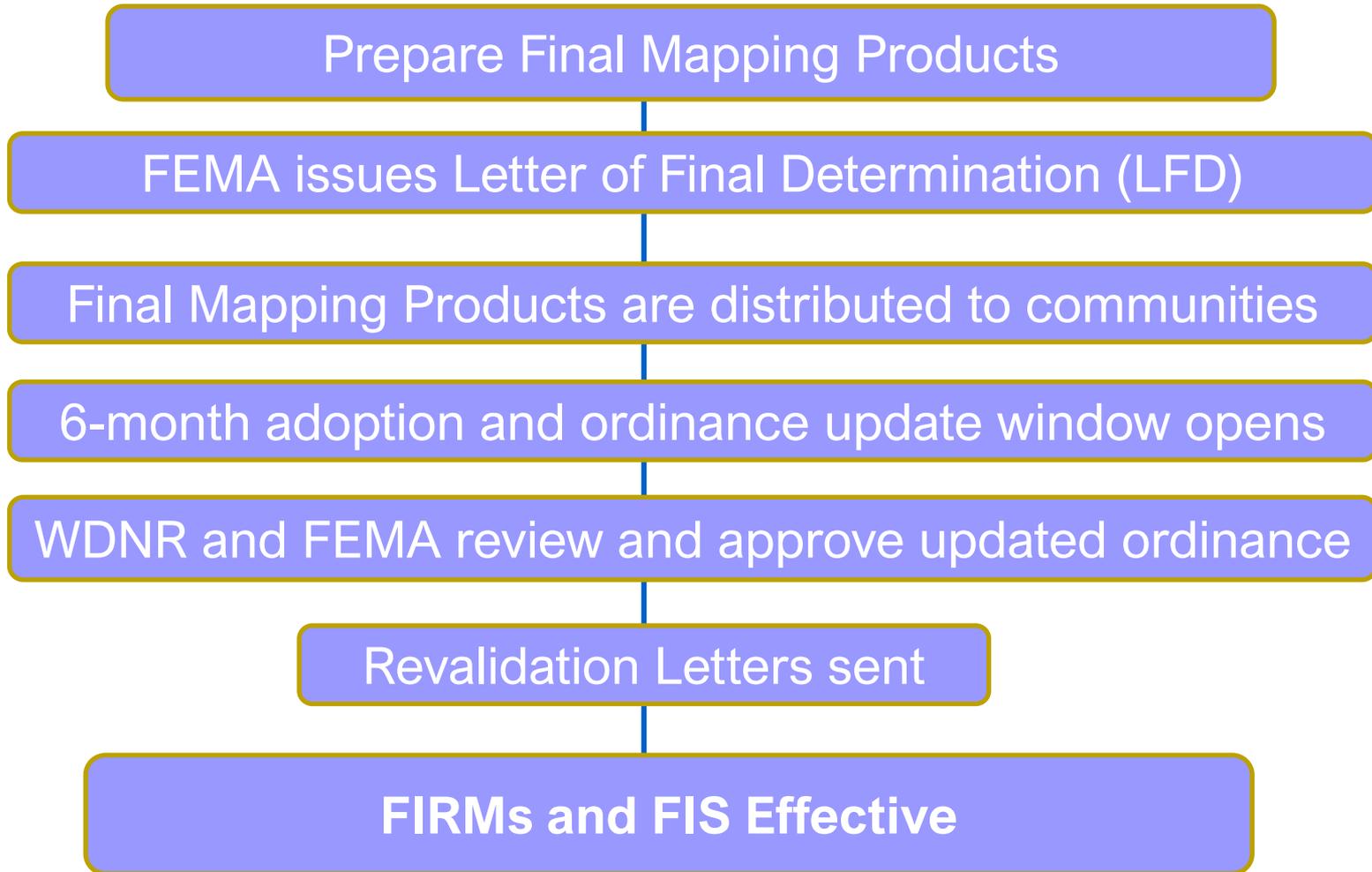
# Appeal and Comment Submission



# Next Steps



# Final Delivery and Adoption



# Letter of Final Determination

- Sent to CEO of Community
- Establishes effective date of FIS and FIRM
- Formal notification to community of need to update floodplain management regulations by the effective date
- Followed by two additional reminder letters

# Adoption by Community

- Every community may have a different process to adopt ordinances or modify existing ordinances
- May require public notice and comment period
- May require a sub-committee approval prior to full board adoption
- May require two or more readings at board meetings prior to formal adoption

# Ordinance Adoption

## Wisconsin Model Floodplain Ordinance

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

MODEL FLOODPLAIN ORDINANCE

FOR

WISCONSIN COMMUNITIES

Effective March 10, 2022

A cooperative effort  
of  
Wisconsin Department of Natural Resource  
and  
Federal Emergency Management Agency

Blue highlights are instructional for the ordinance writer and can be deleted once the item is completed  
Yellow highlights are places where the ordinance needs to be filled in with community specific information  
Grey highlights are ordinance additions for communities that choose to implement Act 175  
Red highlights are ordinance additions for communities that have existing Cranberry Farms (FA-C) (when applicable)  
Green highlights are ordinance additions for communities that have adopted a Flood Storage District (when applicable)  
Pink highlights are ordinance additions for communities that have adopted a Coastal Floodplain District (CFD) (Great Lakes when applicable)

Please replace this page with, "Floodplain Ordinance for (Name of your Community) Effective: Insert date ordinance was adopted by the community."

[dnr.wisconsin.gov](http://dnr.wisconsin.gov)  
Search "Model Ordinance"

## Adoption Step by Step Guide

### Adopting an Ordinance: A Step-By-Step Guide

#### Adopting an Ordinance

1. Proposal to Governing Body
2. Notice of Public Hearing
  - Two consecutive weeks at least a week before hearing.
3. Public Hearing
4. Decision by Governing Body
5. Ordinance Publication
6. Prepare for DNR Approval:
  - Affidavit of Publication of Notice
  - Certified Copy of Final Ordinance Text
  - Affidavit of Publication of Enacted Ordinance
7. Approval by DNR
  - This is the last step, but to speed the approval process up, submit the draft proposal to DNR before starting the ordinance adoption process.

#### 1. Ordinance/Amendment Proposal

Generally, ordinance proposals are drafted by the zoning administrator, planning and zoning staff, corporation counsel or a regional planning commission at the request of the local governing body.

Notice of public hearing (a Class 2 notice under ch. 985, Stats.) must appear in a newspaper on two consecutive weeks, the last publication at least seven days prior to the hearing date.

Calendar						
S	M	T	W	Th	F	Sa
				NI		
4				NI	1	2
3	4	5	6	H		

#### 3. Public Hearing

In cities and villages, the hearing may be held before the designated planning and zoning committee or before the municipal governing body. In counties, hearings on proposed zoning ordinances or amendments are held by the county zoning committee before consideration of an ordinance or amendment by the county board.

#### 4. Decision of the Governing Body

In cities, two thirds of the members of the municipal governing body constitute a quorum except in cities with less than five aldermen, where a majority constitutes a quorum. In villages, a majority of the members constitute a quorum. In counties, a majority of the supervisors constitute a quorum and must be present for a legal vote on proposed zoning ordinances or amendments.

#### 5. Publication of Adopted Ordinance Text

An adopted zoning ordinance or amendment must be published once in the municipality's official newspaper as a Class I Notice Posting. Posting is an option

if the municipality is not required to have an official newspaper published in the municipality that meets the requirements.

#### 6. Ordinance/Amendment Approval

For the DNR to approve an adopted ordinance, the community must submit the following documentation:

- An affidavit of publication from the newspaper and a copy of the published notice. This verifies that the notice of public hearing was published or posted correctly. If the notice was posted, a notarized affidavit by the local official (i.e. clerk) stating that the notice of public hearing was posted in three public places (with date and location) is sufficient proof.
- A certified copy of the adopted ordinance passed by the governing body. A notarized statement by the local official (i.e. clerk) affixed to the ordinance stating that the ordinance is a true and correct copy of what was adopted by the municipality.
- An affidavit of publication from the newspaper and a copy of the notice of the enacted ordinance. If the enacted ordinance (or where to view enacted ordinance) was posted, a notarized affidavit by the local official (i.e. clerk) stating that it was posted in three public places (with date and location) is sufficient proof.

#### 7. Wisconsin Department of Natural Resources

The DNR reviews ordinances for compliance with the minimum state standards. Both the ordinance and adoption procedures are reviewed. When it is determined that all the requirements are met, a formal approval letter is sent to the adopting community.

Floodplain zoning ordinances and amendments do not become effective until approved by the DNR; thus formal approvals are issued each time the ordinance is amended. DNR approvals are required by FEMA for a community to maintain their flood insurance.

To minimize the time and expense associated with ordinance revisions, communities should submit a draft of the proposed language to [DNRFLOODPLAIN@wi.gov](mailto:DNRFLOODPLAIN@wi.gov). Once the DNR has reviewed the draft and the community has made any needed revisions, please follow the complete adoption process outlined in this guide. If you have questions regarding floodplain ordinance adoption, please contact DNR Floodplain staff at [DNRFLOODPLAIN@wi.gov](mailto:DNRFLOODPLAIN@wi.gov) or 608-220-5633.

January 2019



FEMA

RiskMAP

Increasing Resilience Together

# Break Out Session

- Preliminary Viewer Demonstration
- Individual Questions
  - Maps
  - Floodplain Management
  - Insurance
  - Map Adoption

Flood Map Changes Viewer with Web AppBuilder for ArcGIS

Find address or place

## Welcome to the Flood Map Changes Viewer!

The Flood Map Changes Viewer (FMCV) includes the following: [preliminary National Flood Hazard Layer](#), [preliminary Changes Since Last FIRM \(CSLF\)](#), the [Preliminary Map Comparison Tool](#), and the [pending National Flood Hazard Layer](#), and the [National Flood Hazard Layer \(NFHL\)](#). The consolidated FMCV provides a single location to access flood hazard data across several data life stages and facilitates a better understanding of potential changes coming to flood hazard risks. For more information on using the Preliminary Map Comparison Tool in the FMCV, please visit the [Preliminary Map Comparison Tool Tutorial](#) page.

Preliminary data are for review and guidance purposes only and cannot be used to rate flood insurance policies; they are not used to determine whether there is a mandatory flood insurance purchase requirement. By viewing preliminary data and maps, the user acknowledges that the information provided is preliminary and subject to change. Preliminary data, including new or revised FIRMs, FIS reports, and FIRM Databases, are not final and are presented on the MSC as the best data available for a particular area at this time. FEMA will remove the preliminary data for a particular area once effective data are available..

Questions? Contact the Map Specialists at the [FEMA Map Information eXchange \(FMIX\)](#).

Do not show this splash screen again.

OK

### Geoprocessing

Input Output

To print Map Changes report:

- 1) Click the pin tool below.
- 2) Click a point on the map to select location.
- 3) Press Execute to receive a comparison report at 1 in = 500ft scale for the selected location.

The process may take up to one minute.\*

[Help](#) Run

App State

Click to restore the map extent and layers visibility where you left off.

## Legend

### Preliminary National Flood Hazard Layer

Preliminary FIRM Panel Index



Preliminary Political Jurisdictions



Preliminary Profile Baselines



Preliminary Cross-Sections



Preliminary Base Flood Elevations



Preliminary Levees



Preliminary Coastal Transects



Preliminary Transect Baselines



Preliminary General Structures

--- Flood Structure



— Dam, Weir, Jetty

— Other Structures

Preliminary River Mile Markers



Preliminary Limit of Moderate Wave Action



Preliminary Flood Hazard Boundaries

— Limit Lines

SFHA / Flood Zone Boundary

Preliminary Flood Hazard Zones

■ 1% Annual Chance Flood Hazard

## Layer List

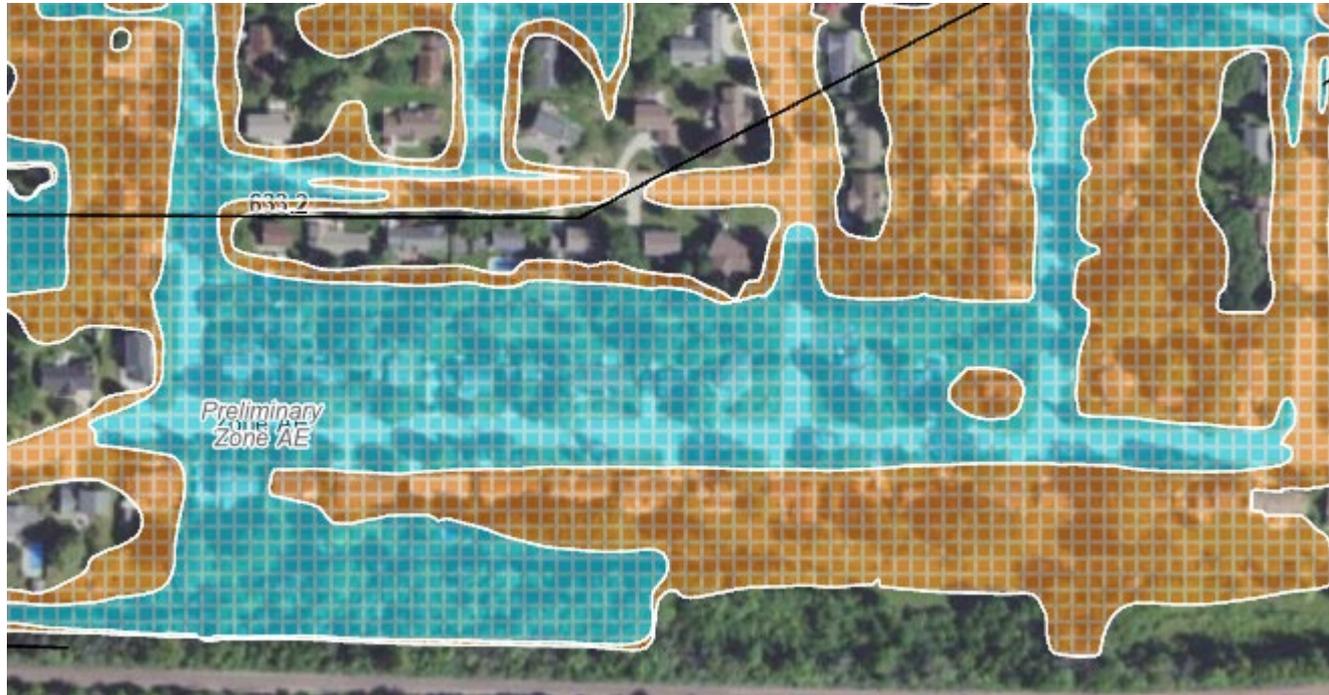
### Layers

- Preliminary Changes Since Last FIRM Layer ...
- Pending National Flood Hazard Layer ...
- Preliminary National Flood Hazard Layer ...
- Effective FIRM Panels ...
- National Flood Hazard Layer ...
- Coastal Barrier Resources System Area (US FWS) ...

## Layer List



- ▶  Pending National Flood Hazard Layer ...
- ▼  Preliminary National Flood Hazard Layer ...
- ▶  Preliminary Data Availability ...
- ▶  Preliminary FIRM Panels ...
- ▶  Preliminary FIRM Panel Index ...
- ▶  Preliminary Political Jurisdictions ...
- ▶  Preliminary Profile Baselines ...
- ▶  Preliminary Water Lines ...
- ▶  Preliminary Cross-Sections ...
- ▶  Preliminary Base Flood Elevations ...
- ▶  Preliminary Levees ...
- ▶  Submittal Information ...
- ▶  Preliminary Coastal Transects ...
- ▶  Preliminary Transect Baselines ...
- ▶  Preliminary General Structures ...
- ▶  Preliminary River Mile Markers ...
- ▶  Preliminary Water Areas ...
- ▶  Preliminary PLSS ...
- ▶  Preliminary Limit of Moderate Wave Action ...



### Geoprocessing

Input Output

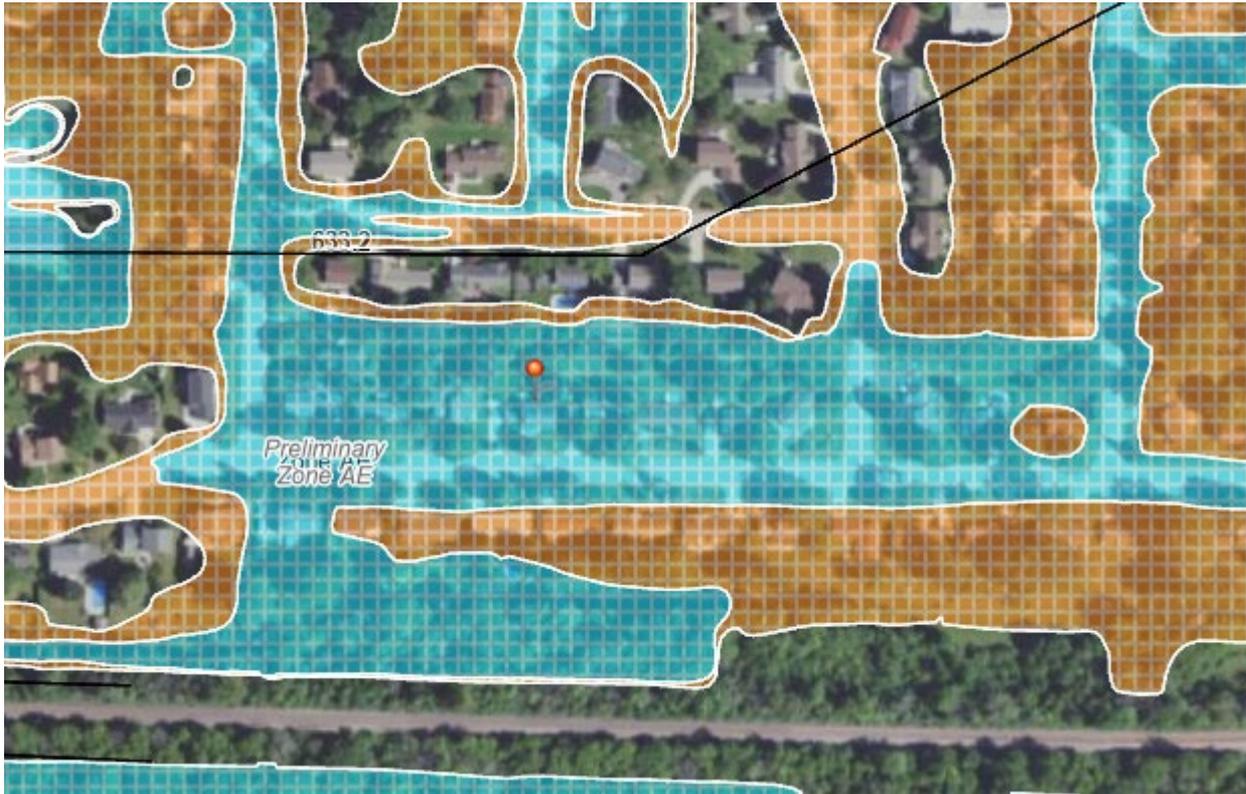
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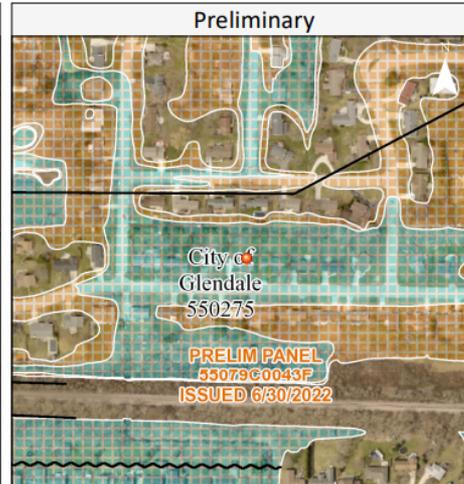
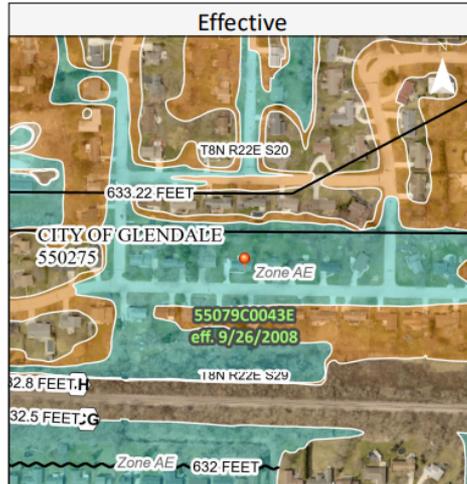
[Help](#) Run



# Comparison Report

## Comparison of Flood Hazard

Effective & Preliminary Flood Hazards



Effective	
POI Longitude/Latitude	-87.9219, 43.133
Effective FIRM Panel	55079C0043E
Effective Date	9/26/2008
Flood Zone	AE
Static BFE*	Not Available
Flood Depth	Not Available
Vertical Datum	Not Available

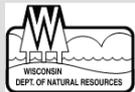
Preliminary	
POI Longitude/Latitude	-87.9219, 43.133
Preliminary FIRM Panel	55079C0043F
Preliminary Issue Date	6/30/2022
Flood Zone	AE
Estimated Static BFE*	Not Available
Estimated Flood Depth	Not Available
Vertical Datum	Not Available

\* A Base Flood Elevation is the expected elevation of flood water during the 1% annual chance storm event. Structures below the estimated water surface elevation may experience flooding during a base flood event.

Hazard Level	Flood Hazard Zone
High Flood Hazard	<b>AE, A, AH, AO, VE and V Zones.</b> Properties in these flood zones have a 1% chance of flooding each year. This represents a 26% chance of flooding over the life of a 30-year mortgage.
Moderate Flood Hazard	<b>Shaded Zone X.</b> Properties in the moderate flood risk areas also have a chance of flooding from storm events that have a less than 1% chance of occurring each year. Moderate flood risk indicates an area that may be provided flood risk reduction due to a flood control system or an area that is prone to flooding during a 0.2% annual chance storm event. These areas may have been indicated as areas of shallow flooding by your community.
Low Flood Hazard	<b>Unshaded Zone X.</b> Properties on higher ground and away from local flooding sources have a reduced flood risk when compared to the Moderate and High Flood Risk categories. Structures in these areas may be affected by larger storm events, in excess of the 0.2% annual chance storm event.

**Insurance Note:** High Risk Areas are called 'Special Flood Hazard Areas' and flood insurance is mandatory for federally backed mortgage holders. Properties in Moderate and Low Flood Risk areas may purchase flood insurance at a lower-cost rate, known as Preferred Risk Policies. See your local insurance agent or visit <https://www.fema.gov/national-flood-insurance-program> for more information.

**Disclaimer:** This report is for informational purposes only and is not authorized for official use. The positional accuracy may be compromised in some areas. Please contact your local floodplain administrator for more information or go to [www.fema.gov](https://www.fema.gov) to view an official copy of the Flood Insurance Rate Maps.



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RiskMAP 55

Increasing Resilience Together