

**RiskMAP**  
Increasing Resilience Together



# **LUCAS COUNTY COMMUNITY CONSULTATION OFFICERS (CCO) MEETING**

**September 20, 2018**



**FEMA**



# **TODAY'S AGENDA**

**Review the Updated Flood Risk Data for Your County**

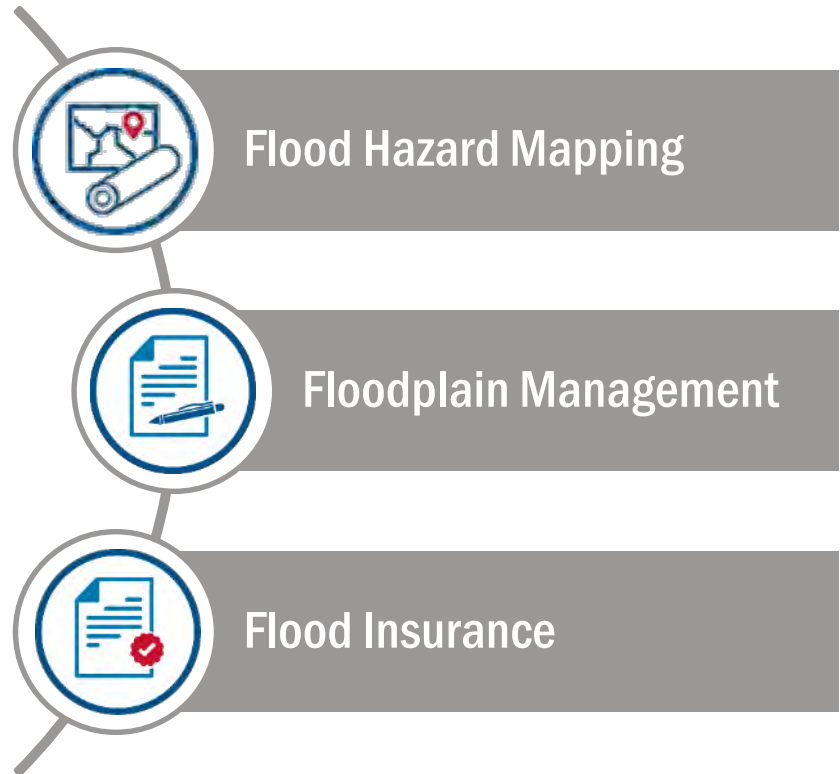
**Next Steps in the Map Adoption Process**

**Understanding Flood Insurance**

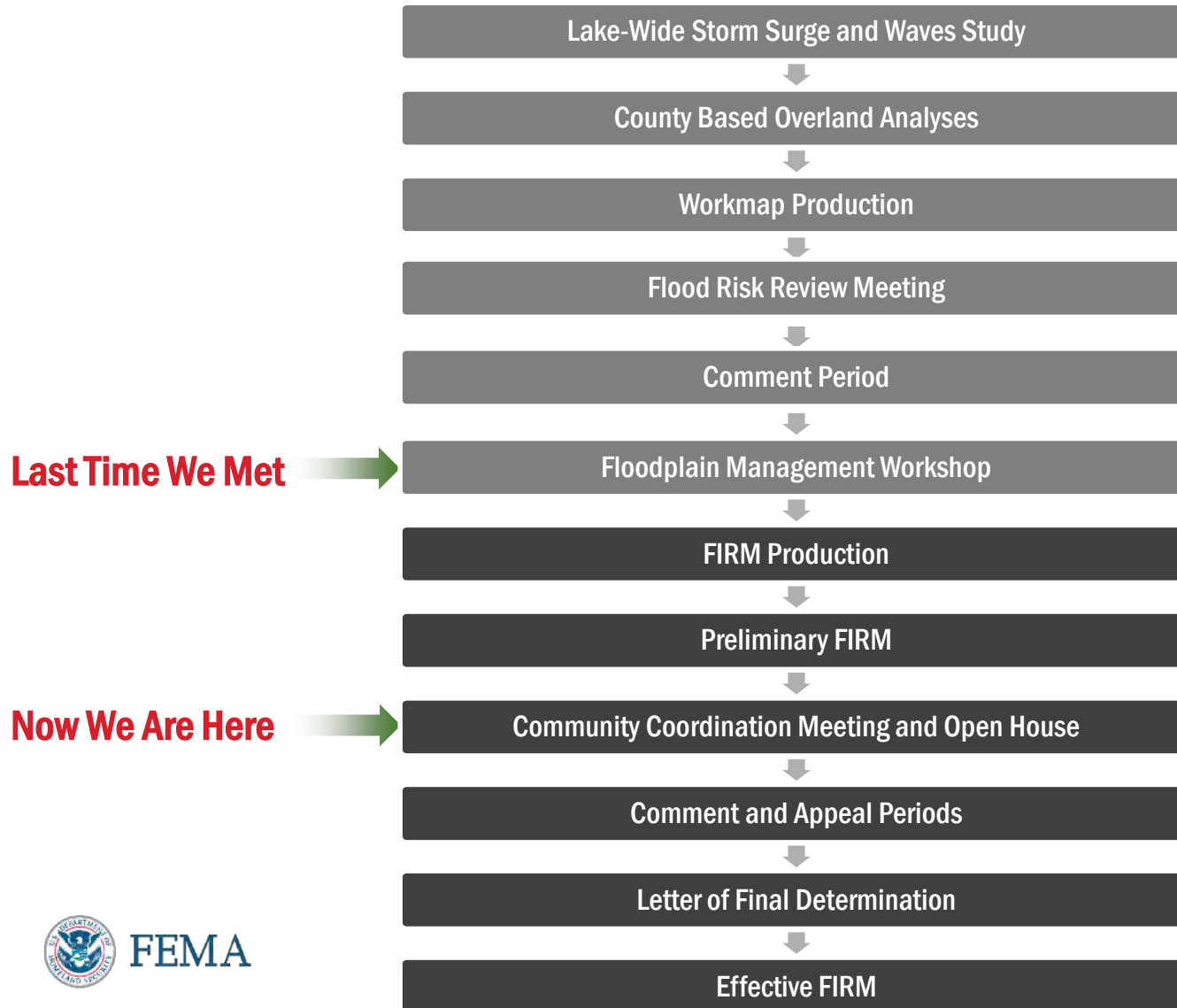
**A Look at Hazard Mitigation**

# 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



FEMA

# Why is FEMA Updating this Community's Flood Maps?

The **Great Lakes Coastal Flood Study** provides updated flood risk information across each of the Great Lakes, including Lake Erie, using uniform methodology, updated terrain data, and modern wave modeling techniques.

Many factors contribute to flood risk changes over time:

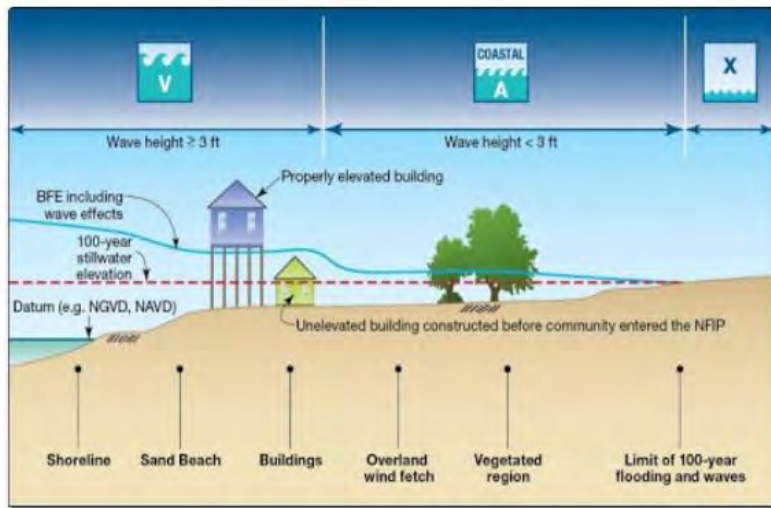
- Population growth & increased development
- Movement in rivers & coastline
- Changing weather patterns & updated rainfall data



# The Great Lakes Coastal Flood Study Approach

## ■ Regional Study Approach

- Water level and wave analysis
  - 155 storms from 1960-2009
- Greater consistency in assumptions
- Reduces number of boundary conditions



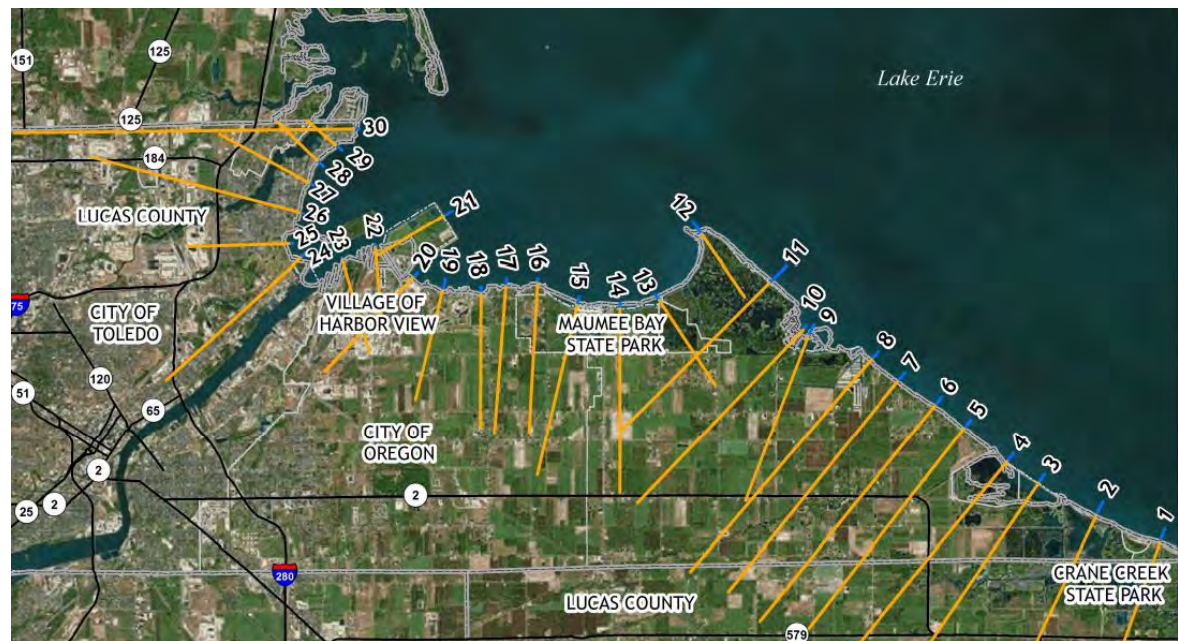
## ■ Local/County Level Activities

- Mapping level tasks performed at county level
- Nearshore wave transformations
- Erosion
- Wave runup
- Overland wave propagation



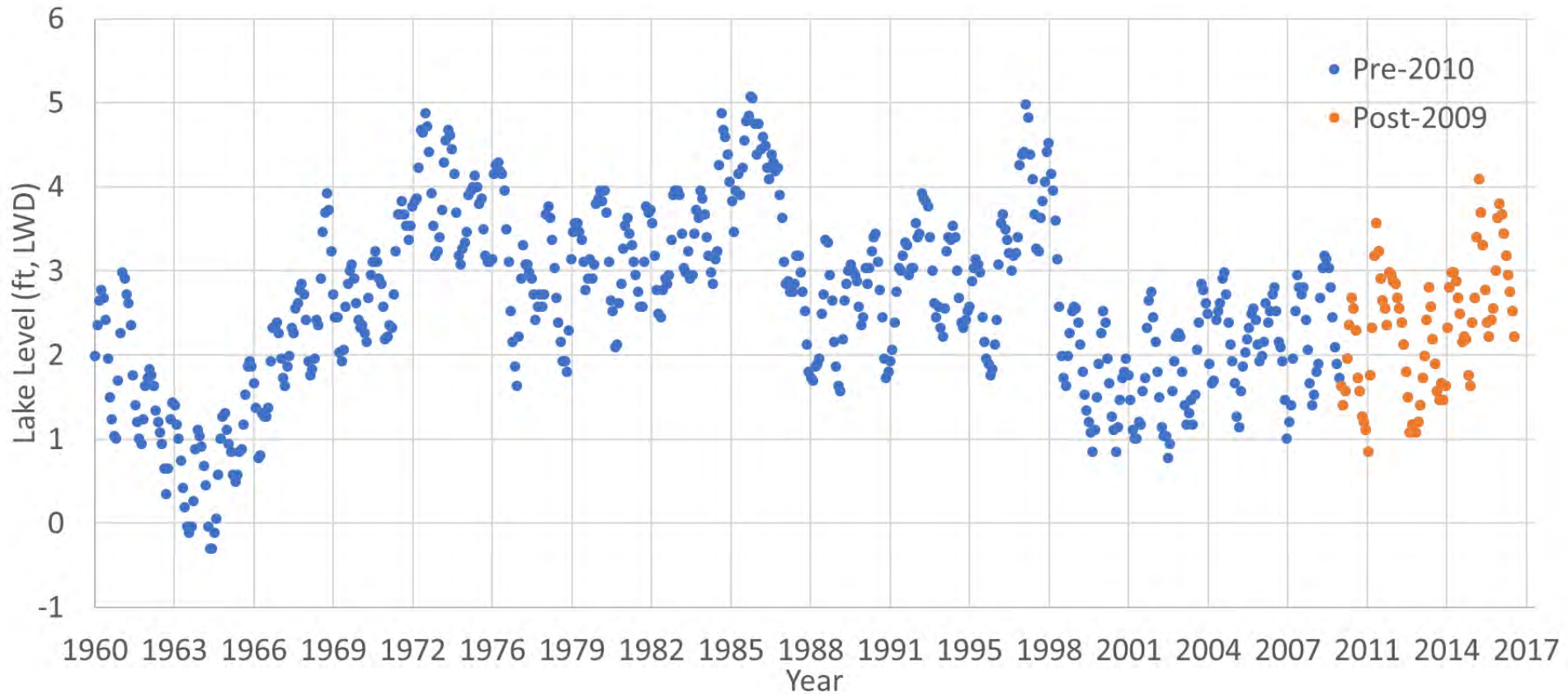
# The Great Lakes Coastal Flood Study in Lucas County

- **37 miles of coastline**
  - Coastal Hazard Analysis
    - 30 Coastal Transects
  - Riverine-Coastal Special Flood Hazard Area integration
  - Topography
    - 2012 U.S. Army Corp of Engineers Lake Erie LiDAR
    - 2006 Lucas County Ohio Statewide Imagery Program (OSIP) LiDAR





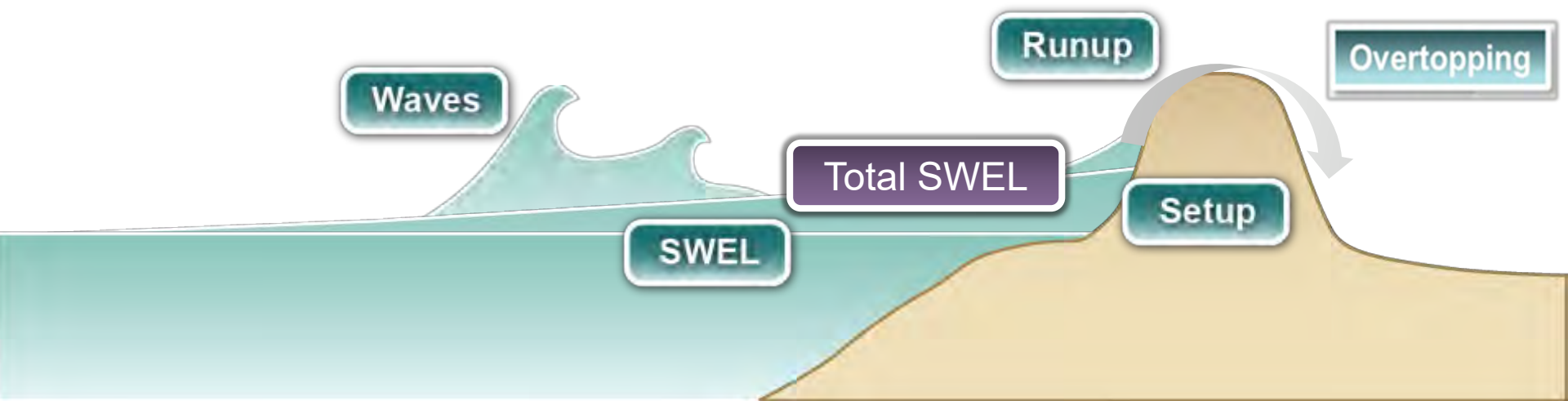
# Great Lakes Water Levels



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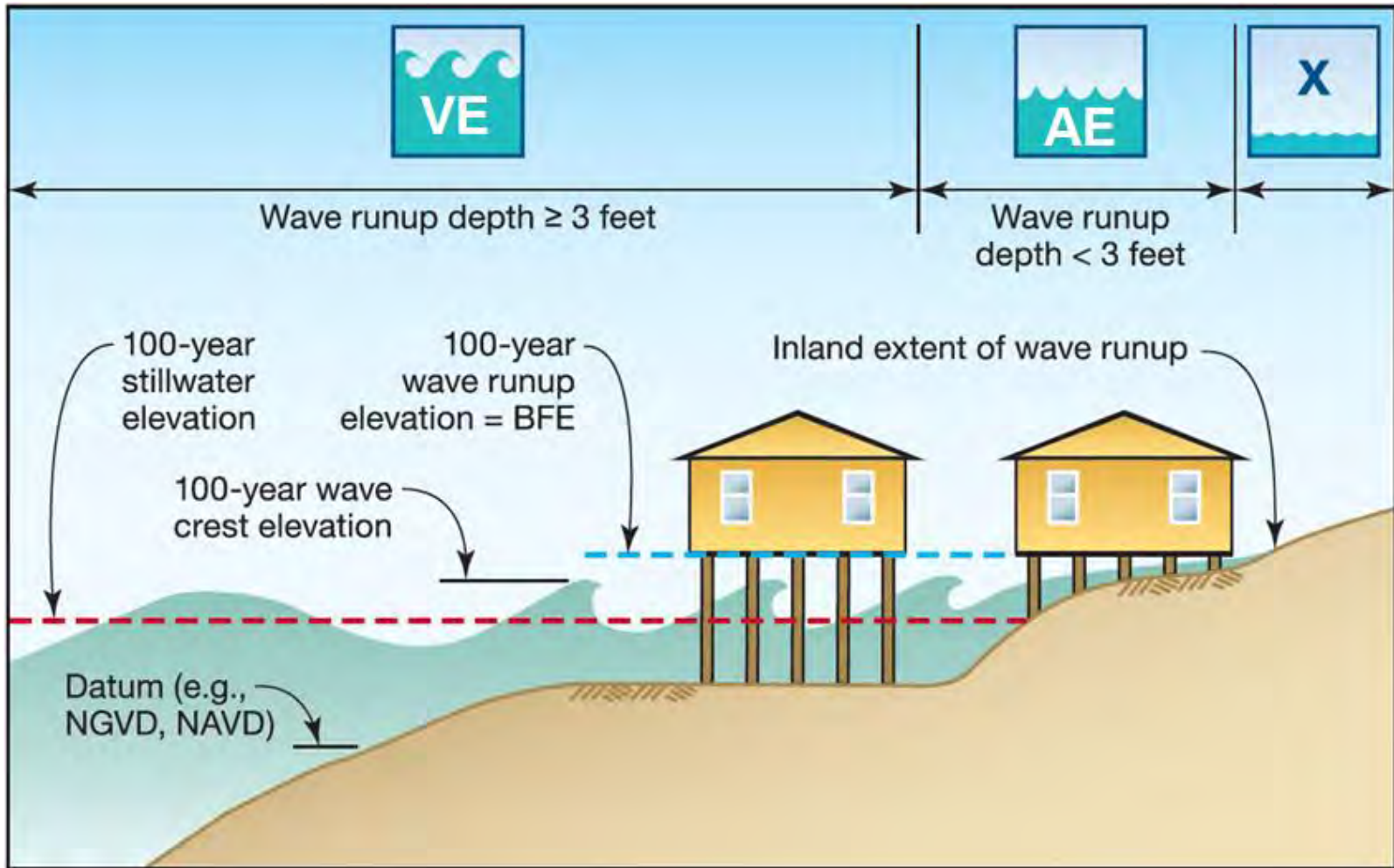
# Measuring Coastal Base Flood Elevation



**SWEL = Stillwater Elevation (storm surge level)**

**Total SWEL = Stillwater Elevation, inclusive of wave setup**

# Runup Mapping



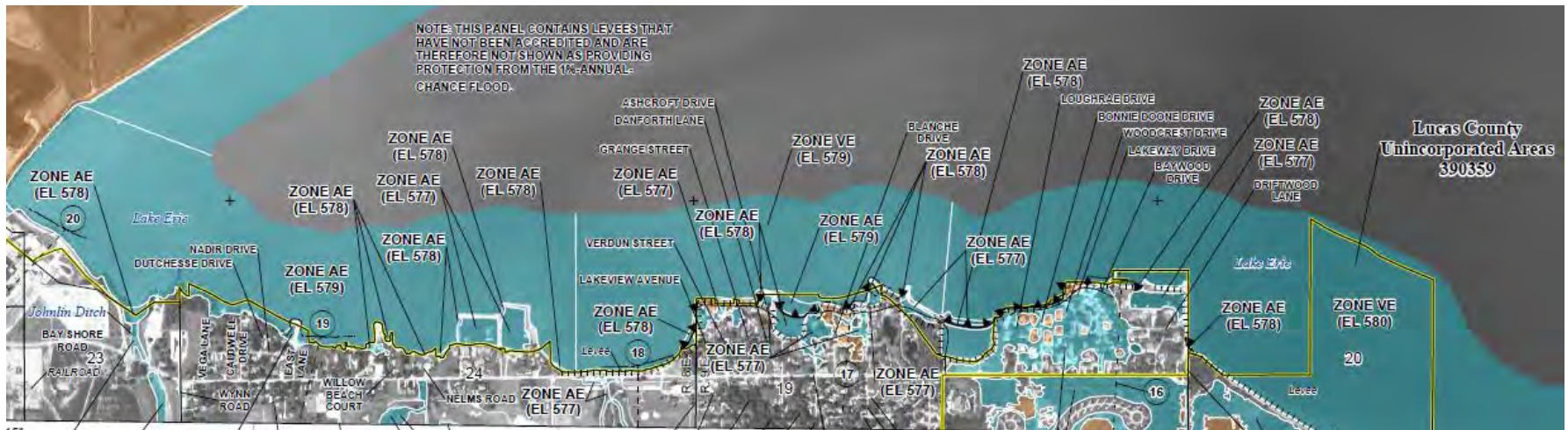
FEMA

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# Wave Runup Mapping

- Wave runup is very sensitive to shoreline characteristics
- Single Base Flood Elevation (BFE)
- Gutters perpendicular to the shore divide the BFEs
- Transitional zones capture changes in shoreline characteristics between transects
- Wave runup mapping may have associated overtopping or AO zones



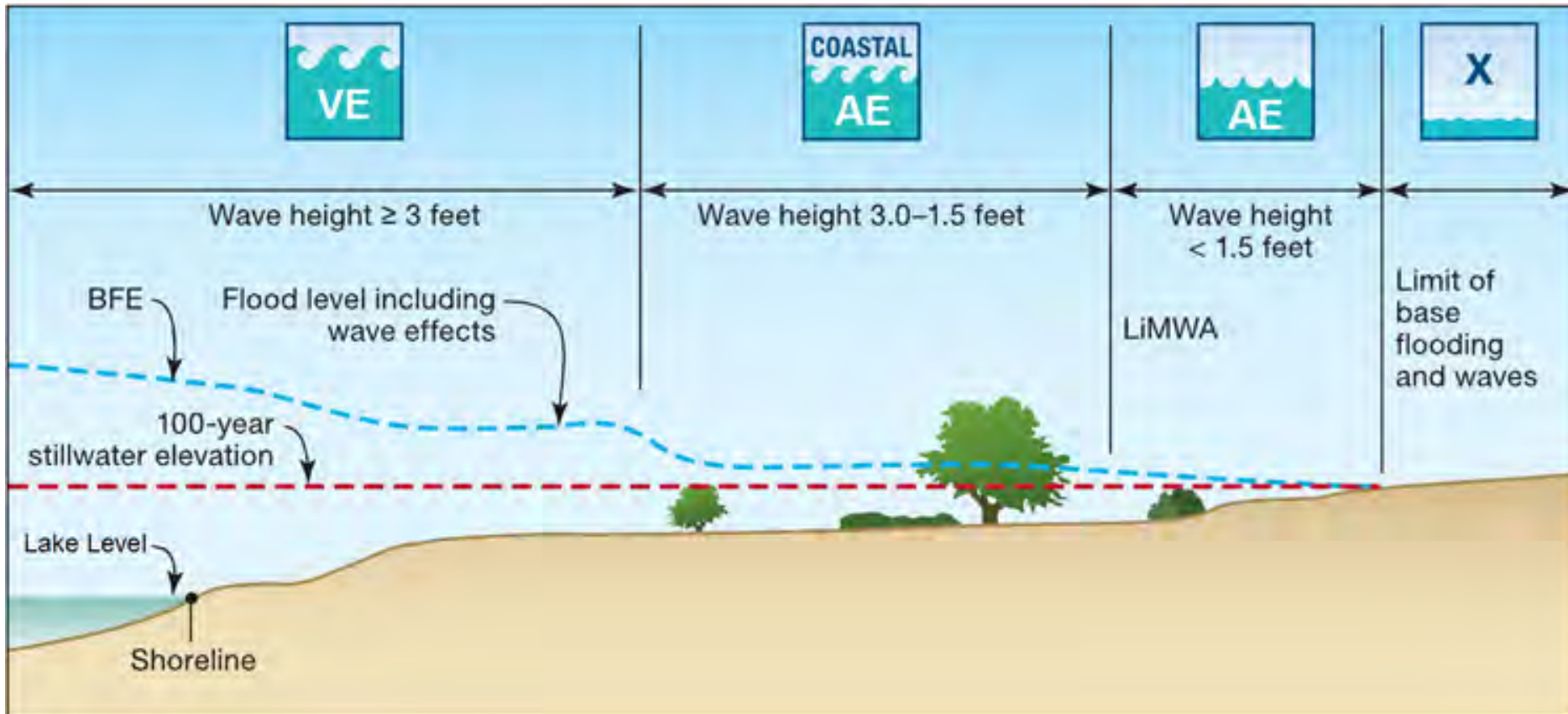


# Wave Overtopping: Zone A0



- **Overtopping rate considerations for establishing flood insurance rate zones**
- **Sheet Flow Considerations**
  - Areas where AE not present beyond slope break
  - Duration of overtopping
  - Rainfall associated with event
  - Topography
  - Drainage landward of the overtopped barrier

# Overland Mapping



**LIMWA: Limit of Moderate Wave Action**

# Special Flood Hazard Area (SFHA) Zones

## ▪ Zone VE

- Coastal high-hazard zone areas where wave action and/or high-velocity water can cause structural damage during the 1-percent-annual-chance flood
- Wave heights > 3ft
- Subdivided into elevation zones & BFEs are assigned

## ▪ Zone AE

- Applied in areas subject to inundation by the 1-percent-annual-chance flood
- Wave heights < 3ft
- Subdivided into elevation zones & BFEs are assigned

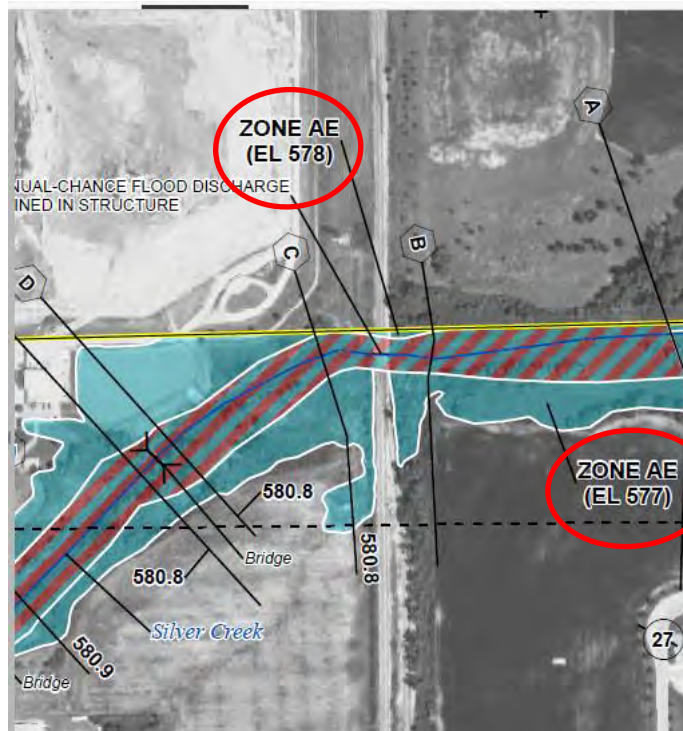
## ▪ Zone AO

- Applied in areas of sheet-flow & shallow flooding



# Scope of Work: Integrating Riverine and Coastal Data

## Updated Coastal Stillwater BFE



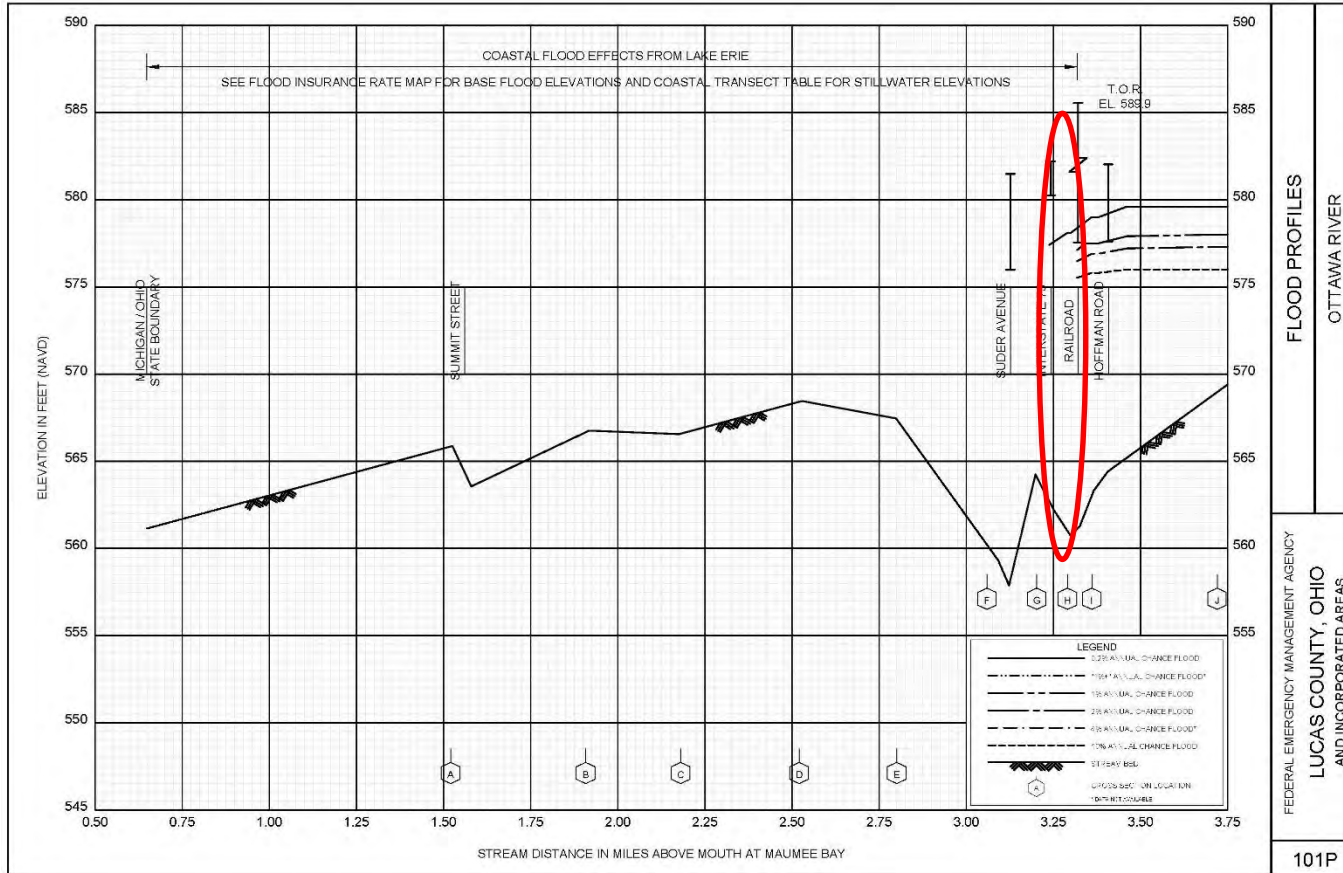
## Effective Riverine BFE



**Limits of Coastal Flood Effects from Lake Erie are shown on FIRM and in the Flood Insurance Study (in Table 24: Floodway Data and in Flood Profiles)**



# Scope of Work: Riverine-Coastal SFHA Integration



A	1.5	1,308	8,962	0.9		575.0 <sup>2</sup>	575.5	0.5
B	1.9	721	5,039	1.7		575.1 <sup>2</sup>	575.6	0.5
C	2.2	889	6,017	1.4		575.2 <sup>2</sup>	575.7	0.5
D	2.5	856	5,469	1.6		575.2 <sup>2</sup>	575.7	0.5
E	2.8	1,205	5,512	1.5		575.3 <sup>2</sup>	575.7	0.4
F	3.1	552	3,747	2.3	30	575.4 <sup>2</sup>	575.8	0.4
G	3.2	363	3,444	2.5	99	575.8 <sup>2</sup>	576.2	0.4
H	3.3	411	4,663	1.8	272	576.9 <sup>2</sup>	577.3	0.4
I	3.4	863	7,039	1.2		577.5	577.5	0.4

\* Controlled by coastal flooding – see Flood Insurance Rate Map for regulatory base flood elevation



# Scope of Work: Riverine-Coastal SFHA Integration

- **Detailed Zone AE**
  - Maumee River 88P
  - Ottawa River 101P
  - Silver Creek 129P
- **LOMR Incorporation**
  - 13-05-0687P, Williams Ditch, 0088F
  - 16-05-1552P, Oregon Flood Relief and Erosion Control Project affecting 4 FIRM panels:
    - Incorporated on 110F & 120F
    - Superseded by coastal data on 104F
    - Partially incorporated and superseded by coastal data on 115F
- **Approximate Zone A**
  - Upstream portion of Shantee Creek

# Point Place Levee

- **January 2008: Toledo signs Provisionally Accredited Levee (PAL) agreement.**
- **August 16, 2011: PAL status shown on Lucas County effective FIRM.**
- **October 2012: Toledo submitted levee accreditation package to FEMA; submittal was determined to be insufficient to accredit levee.**
- **March 7, 2018: Point Place Levee LAMP plan finalized.**
- **August 13, 2018: Preliminary FIRM released; levee mapped as Natural Valley.**

# Point Place Levee – Preliminary FIRM

- Mapping of natural valley analysis on the landward side of the levee.
- Effective FIRM Panel 105E (1:12,000 scale) reformatted into four (4) 1:6,000 scale panels.
- Point Place: 0101F, 0102F and 0103F





# Swan Creek Levee

- **January 2008: Designated by FEMA as a Provisionally Accredited Levee (PAL); however supporting data did not meet 44 CFR 65.10 minimum requirements.**
- **March 7, 2018: Swan Creek Levee LAMP plan finalized.**
- **June 2018: Toledo submitted levee accreditation package to FEMA; submittal was determined to be insufficient to accredit levee.**
- **August 13, 2018: Preliminary FIRM released; levee mapped as Natural Valley.**

# Swan Creek Levee – Preliminary FIRM

- Mapping of natural valley analysis on the landward side of the levee.
- Swan Creek: 0088F and 0089F



# What are “Changes Since Last FIRM” in Lucas County ?

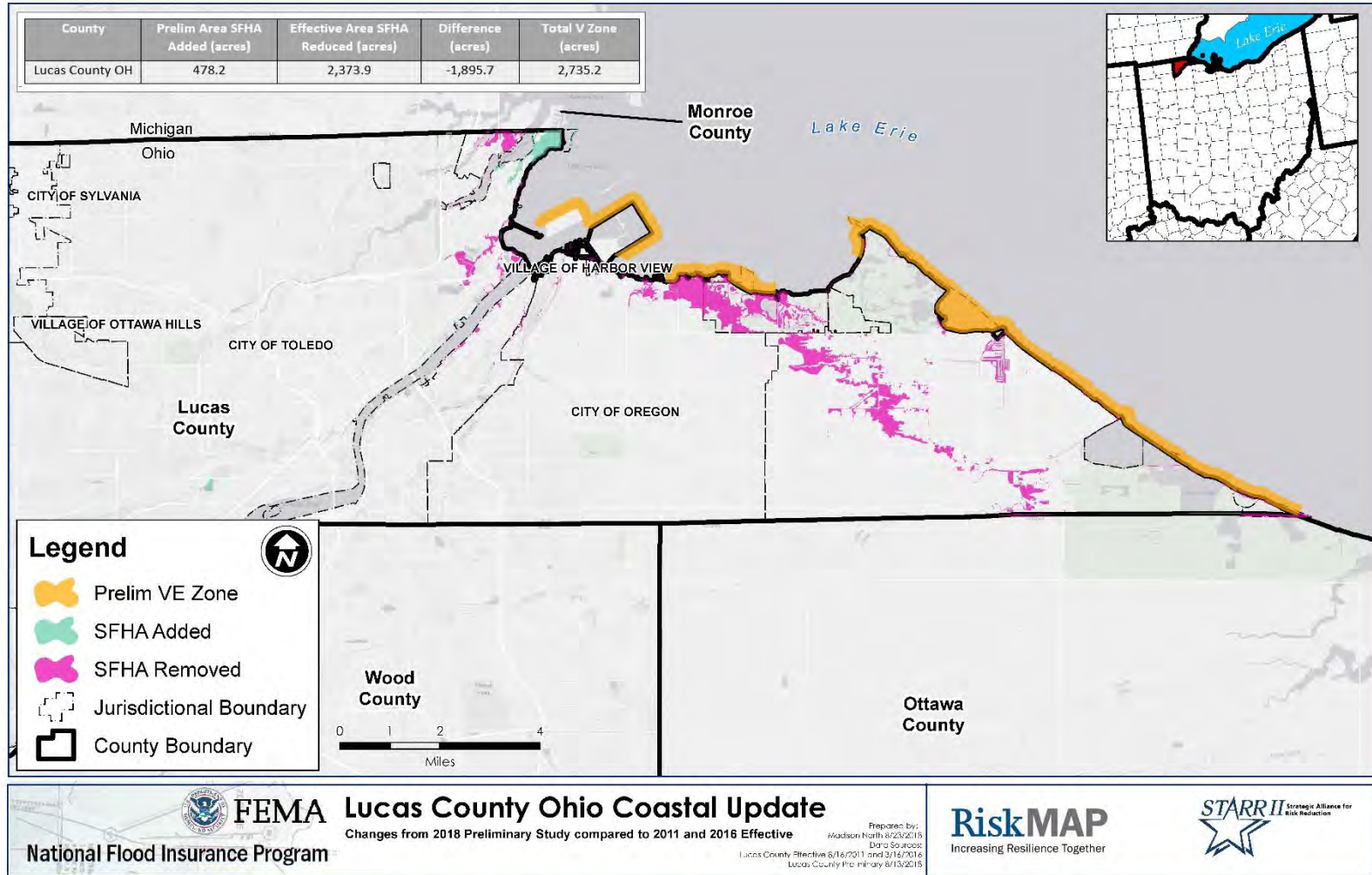
**The “Changes Since Last FIRM” (CSLF) product compares the Effective Flood Insurance Rate Maps (FIRMs) to the new Preliminary FIRMs in GIS format.**

**In Lucas County, as in all counties along the Great Lakes:**

- Coastal VE Zone replaced Effective Zone AE
  - Coastal High Hazard (Wave heights > 3ft)
- New Coastal AE Zones
  - Inland (behind shoreline) (Wave heights < 3ft)
- New Coastal AO Zones
  - Shallow Ponding Depths 1-3ft
- Riverine AE & A Zones were integrated
  - Coastal Stillwater Backwater Elevations were remapped, where applicable



# Changes Since Last FIRM in Lucas County



# Summary of Lucas County's Letter of Map Changes (LOMCs)

SOMA-1

## PRELIMINARY SUMMARY OF MAP ACTIONS

Community: TOLEDO, CITY OF

Community No: 395373

### 2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	01-05-2237A	06/27/2001	DE LUX GRAND VIEW ADDITION, LOT 40 AND 41 -- 2820 103RD STREET	39095C0105D	39095C0103F
LOMA	01-05-2418A	06/27/2001	SOUTHWAY PARK, LOT 28 -- 2512 BRENTFORD COURT	39095C0088D	39095C0088F
LOMA	01-05-2337A	09/28/2001	STERLING PLACE #3 -- 73 CITY PARK	39095C0093D	39095C0093F
LOMA	02-05-3256A	07/17/2002	ARCO INDUSTRIAL PARK PLAT 2, LOT 17, 110 & 112 ARCO DRIVE	39095C0088D	39095C0088F
LOMA	02-05-3319A	08/09/2002	LAURELWOOD, LOTS 276-278; 408 BURBANK DRIVE	39095C0088D	39095C0088F
LOMA	02-05-2285A	08/16/2002	RAINTREE, LOT 124; 5829 ROUNDING RIVER LANE	39095C0105D	39095C0101F
LOMR-F	03-05-2961A	06/04/2003	RIVERA ANNEX PLAT 2, LOT 21; 2312 SHORELAND AVENUE	39095C0105D	39095C0103F
LOMA	05-05-1072A	03/02/2005	SOUTHWAY PARK, LOT 49 -- 2460 AIR LINE AVENUE	39095C0088D	39095C0088F
LOMR-F	06-05-BB65A	04/13/2006	COWELL ADDITION, LOTS 1-3 -- 2602 NEBRASKA AVENUE (OH)	39095C0088D	39095C0088F
LOMR-FW	06-05-BB42A	06/12/2006	ARCO INDUSTRIAL PARK SOUTH, PLAT 2, LOT 21 -- 302 ARCO DRIVE (OH)	39095C0088D	39095C0088F
LOMA	06-05-BW89A	08/15/2006	PORTION OF SECTION 8, T3, U.S. RESERVE -- 3419 HILL AVENUE (OH)	39095C0088D	39095C0088F
LOMA	07-05-0944A	02/08/2007	LOT 24, WILLOW BROOK -- 3718 ANGLEBROOK COURT (OH)	39095C0105D	39095C0103F
LOMA	07-05-3636A	05/10/2007	SOUTHWAY PARK, LOT 30 -- 2516 BRENTFORD COURT (OH)	39095C0088D	39095C0088F
LOMA	08-05-0398A	11/29/2007	RIVIERA ANNEX PLAT 2, LOT 16 -- 2328 SHORELAND AVENUE	39095C0105D	39095C0103F
LOMA	08-05-3656A	06/17/2008	ARCO INDUSTRIAL PARK SOUTH PLAT 2, LOT 8 -- 2310 FRENCHMENS ROAD	39095C0088D	39095C0088F
LOMA	09-05-8066A	02/17/2010	Lot 62 - 2636 Coveview Drive	39095C0105D	39095C0101F

7/28/2018

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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 Re-determined

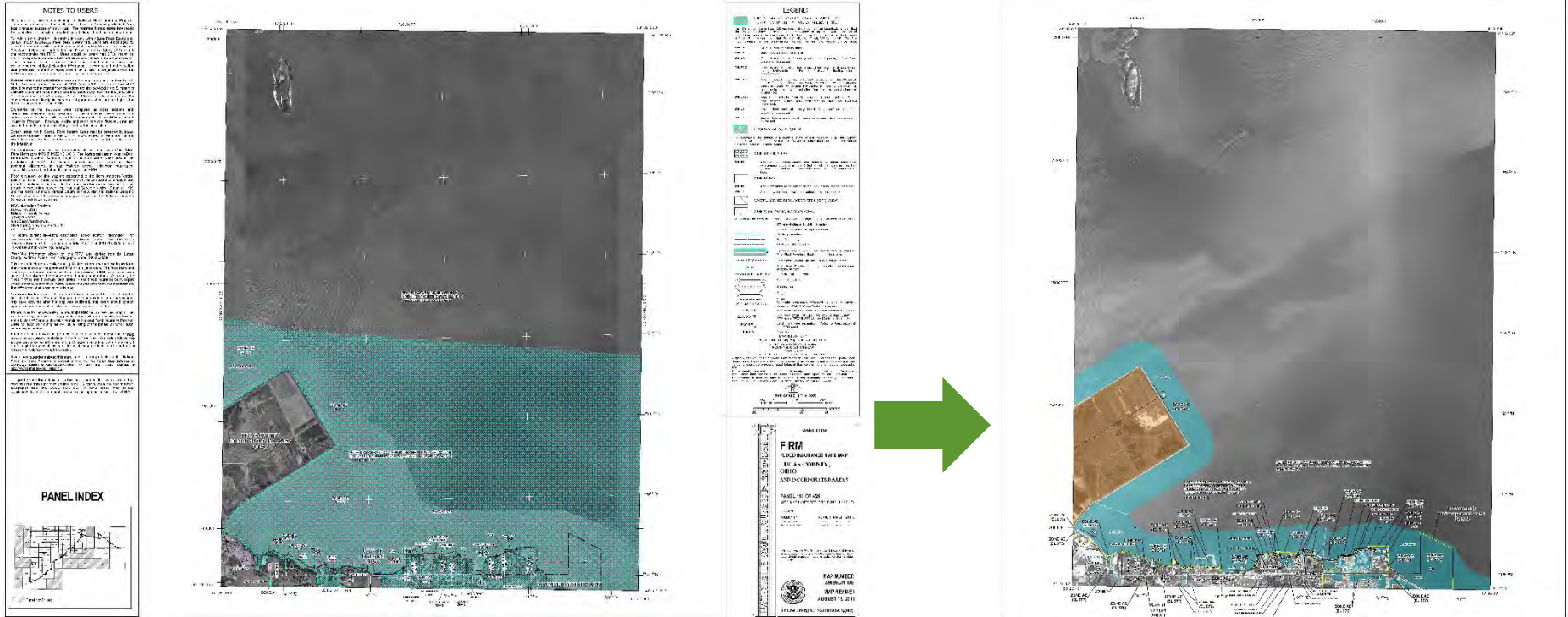
Be sure to review the prelim SOMA for completeness

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





# NOTE: Format Changes to the FIRM





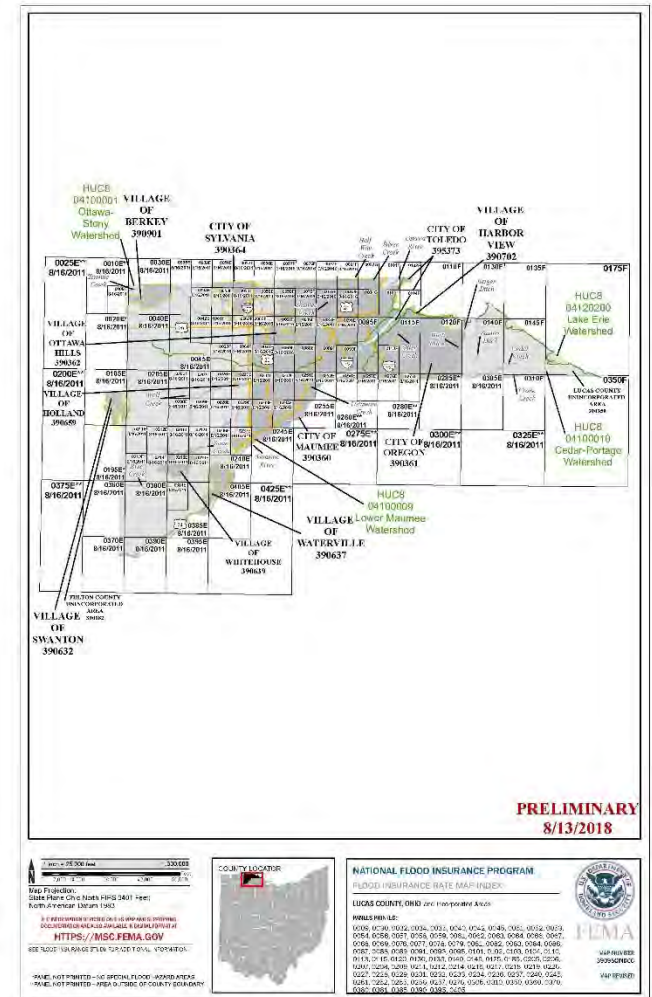
# NOTE: Format Changes to the Flood Insurance Study (FIS)

## FIRM Index integrated into the FIS

- Simplified significantly
  - FIRM Panel Index, Political Areas, & Watershed Boundaries
  - Panel dates/Panel-Not-Printed notes kept on Index
- 11x17 fold-out
- Map repositories and community dates are moved into FIS tables

## Other additions to FIS:

- Summary Tables added
  - Hydrologic and Hydraulic Analysis
- FIRM “Map Legend” added to FIS
- FIRM “Notes to Users” moved to FIS

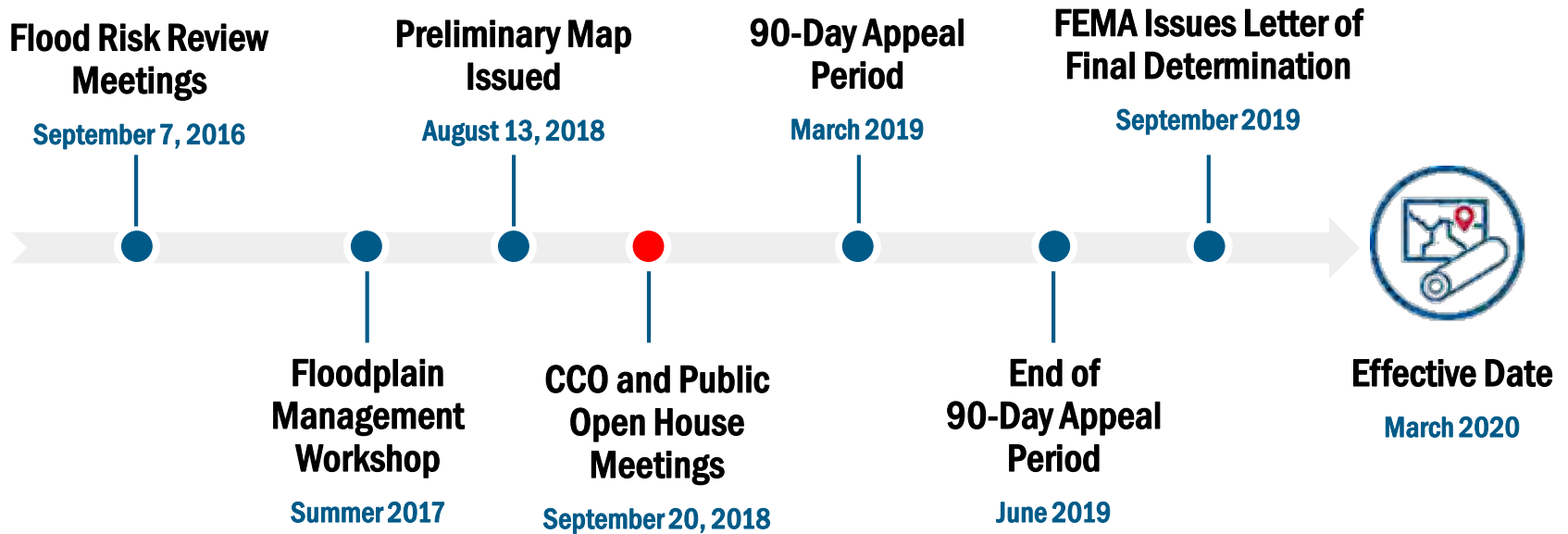


# Next Steps in the Map Adoption Process



FEMA

# Timeline for Lucas County





# 4-Step Pre-Adoption Process



**Inform the  
Community**



**Gather Comments  
and Additional Data**



**Appeal Process**



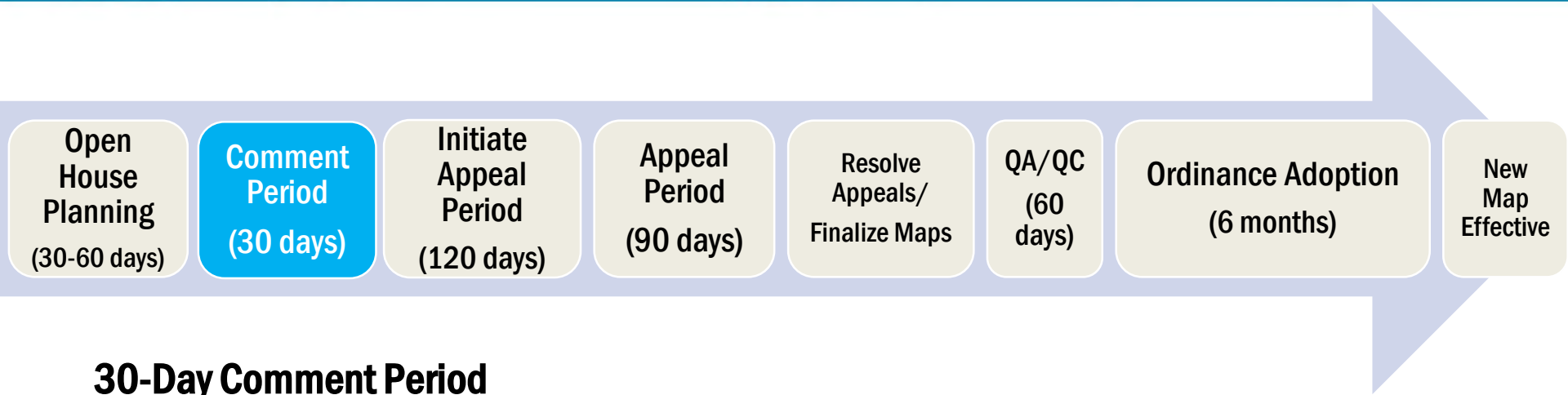
**LFD Issued**

# #1: Inform the Community – Open House

- **Viewing via paper maps or map viewer**
- **Opportunity to share program info with property owners**
- **Comment Sheets Collected**
- **Attendees Notified as Process Moves Forward**



# The Comment Period



## 30-Day Comment Period

### Comments can include:

- **Non-technical issues related to the natural valley analysis floodplain**
- **Errors/mistakes (misspelled street names, corporate boundary changes, omissions)**
- **Begins today and runs through October 19, 2018**



## #2: Gather Community Comments

- **Homeowners may choose to submit comments through community officials**
- **FEMA request that community officials forward initial round of comments to FEMA no later than October 20, 2018**



# #3: Appeal Process

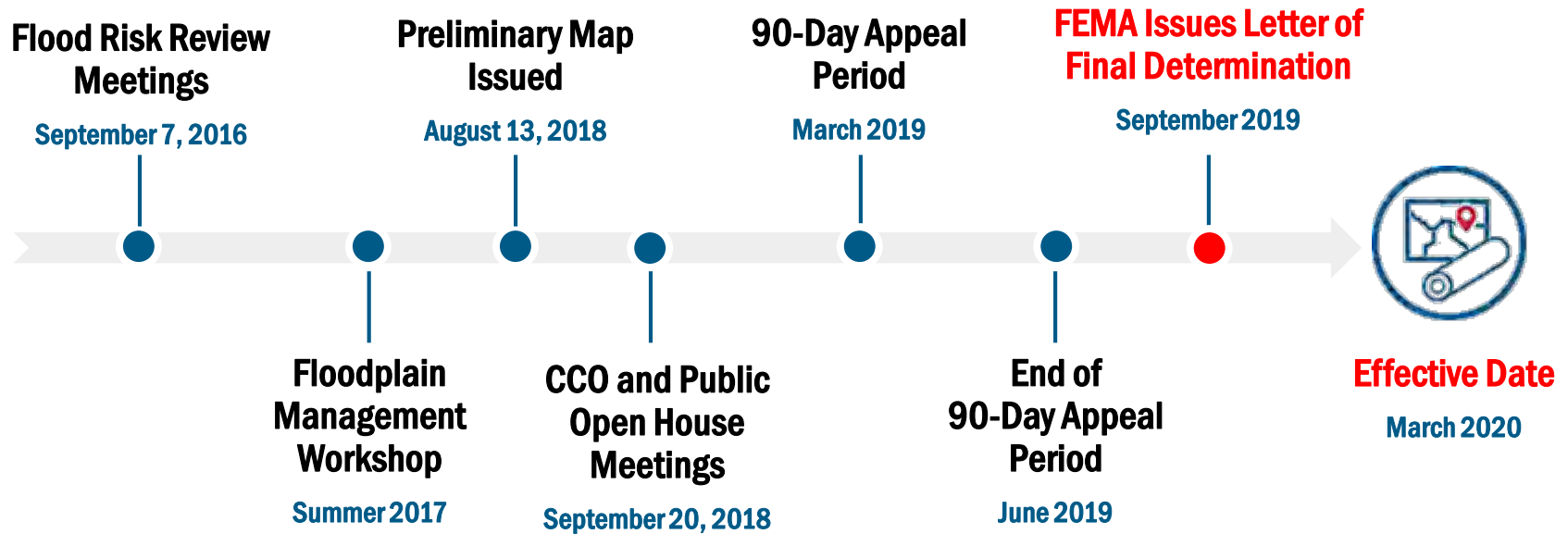
- **Appeal Period is 90 days**
- **Publication of Notice in Federal Register**
  - Notification to communities by letter including two local newspaper publications
- **All are welcome to submit information**
  - FEMA recommends directing comments through local community officials to provide a consolidated 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**



# The Appeals Period: Appeals vs. Comments

- **To be considered an **appeal**, a submittal must:**
  - Include data that shows the proposed flood hazard information (e.g. new or modified Special Flood Hazard Area zones or boundaries, Base Flood Elevations, base flood depths, and/or floodway boundaries) is scientifically or technically incorrect;
  - Include the necessary revisions to the FIRM and/or FIS report (e.g. boundaries of revised floodplains);
  - Be received during the statutory 90-day appeal period
- **The term **comment** is used for any submittal that does not meet the requirements for an appeal as outlined above**

# #4: Issuing the Letter of Final Determination





# Proposed Schedule

<b>Task</b>	<b>Date</b>
<b>Preliminary Distribution by FEMA</b>	<b>August 13, 2018</b>
<b>CCO Meeting</b>	<b>September 20, 2018</b>
<b>30-Day Community Review Ends</b>	<b>October 19, 2018</b>
<b>Federal Register Flood Elevation Publication</b>	<b>February 2019</b>
<b>90-Day Appeal Period 1st Newspaper Publication</b>	<b>March 2019</b>
<b>90-Day Appeal Period 2nd Newspaper Publication</b>	<b>March 2019</b>
<b>Appeal Period Ends</b>	<b>June 2019</b>
<b>Potential Letter of Final Determination Date</b>	<b>September 2019</b>
<b>Maps Become Effective</b>	<b>March 2020</b>

# Understanding Floodplain Management Ordinance Requirements



FEMA

# Participation in the National Flood Insurance Program

- **NFIP is a voluntary program.**
- **Participation requires that communities adopt and enforce floodplain management regulations in the form of a community ordinance.**
- **At a minimum, the floodplain management regulations need to be based on the risk data provided by FEMA (the FIRM and FIS).**
- **Participation in the NFIP makes flood insurance available to the residents and businesses within your communities.**
- **Flood insurance is a requirement for federal loans (insured or otherwise) or other 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
- **Ordinance needs to be compliant prior to effective date of FIRM & FIS (or community may be suspended from NFIP)**





# 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)**
- **FEMA establishes the minimum requirements; however, states and local communities are encouraged to adopt more restrictive standards to better address their flood risk. When these higher standards are in place, they take precedent over the minimums.**

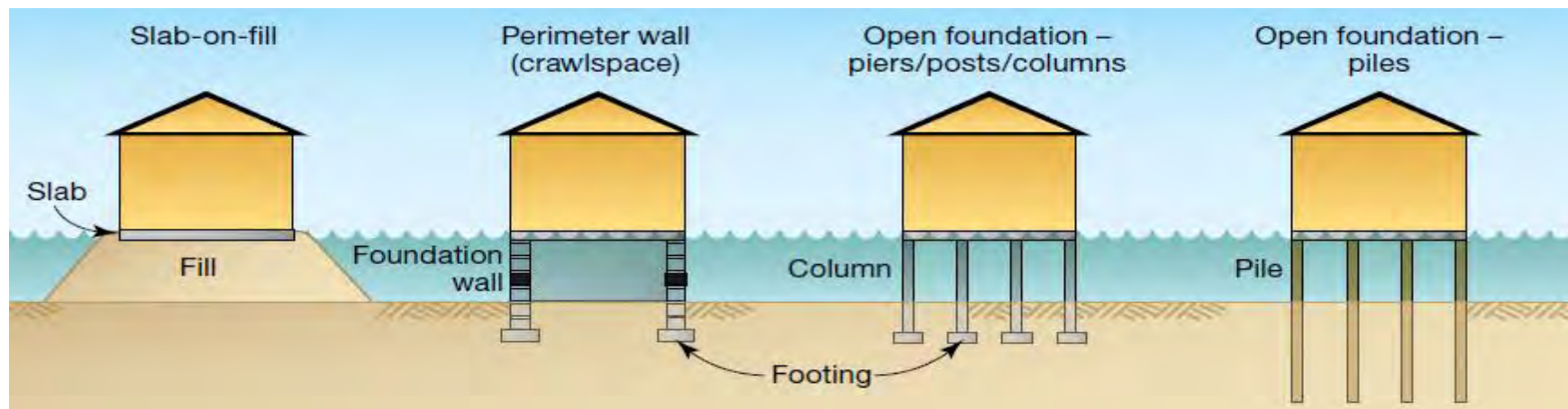
# Differences in Development Requirements

## A Zones

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

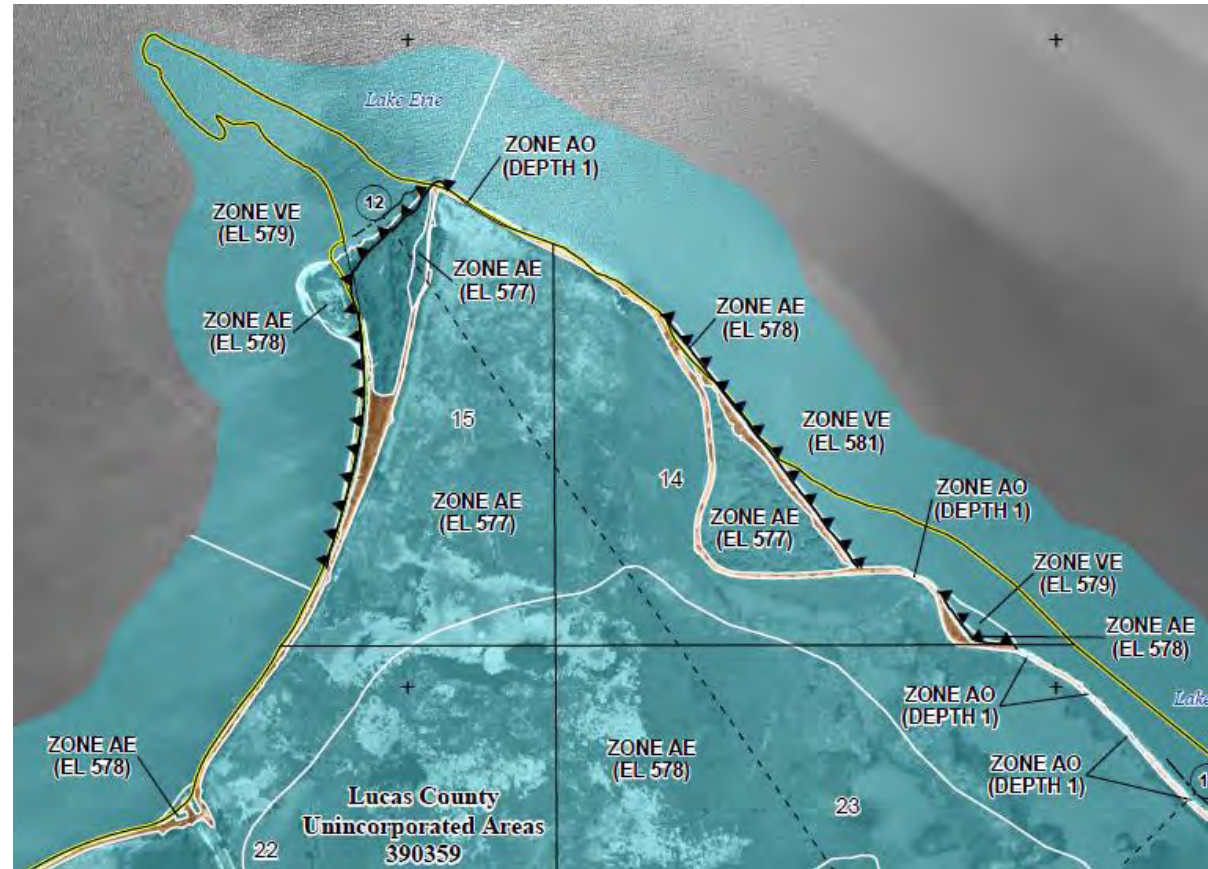
## V Zones

- 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.
- Professional Engineer or Architect shall certify the design, including wind loading, of the structure and be on file with the permit records.



# LIMWA (Limit of Moderate Wave Action) on the Map

- At present, not a regulatory requirement
- Community Rating System (CRS) benefit for communities requiring VE Zone construction standards in areas defined by LIMWA or areas subject to waves greater than 1.5 feet
- Building codes may require construction to VE Zone standards when in a LIMWA





# Understanding Flood Insurance



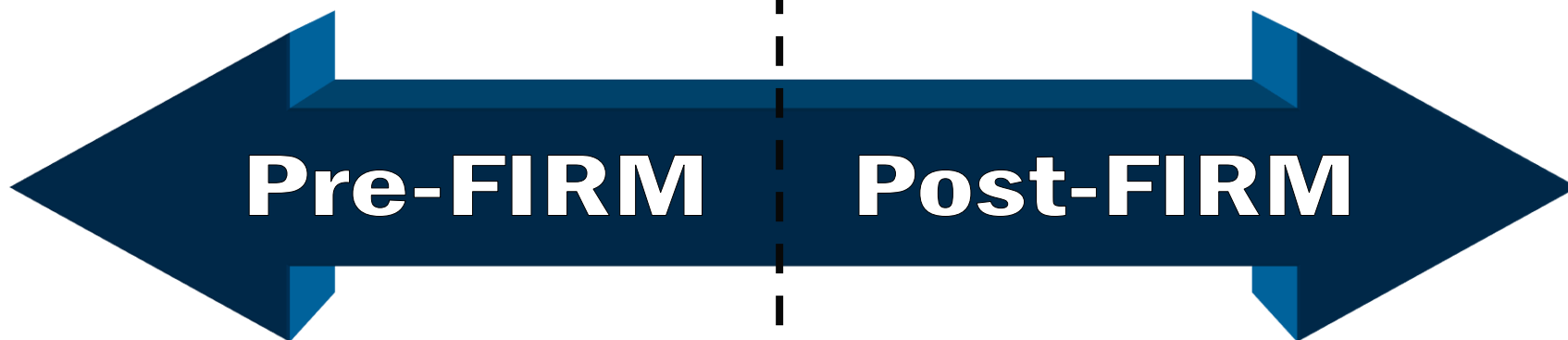
FEMA



# 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 BFE (Base Flood Elevation) and lowest floor
  - For Post- and Pre-FIRM structures, if there is an elevation certificate

# Effects of New Flood Zones on Flood Insurance

**A property owner's insurance needs may change with the new zones.**

**The new FIRM may:**

- Map a property into the SFHA for the first time
  - Their **lender** may require them to get an insurance policy
- Create a zone change on an already mapped-in property
  - Moving from an “A” zone to a “V” zone
  - Rating will change the next policy year
- Not affect a property or an insurance policy at all

# 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 (Standard)**
  - 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



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

- **Grandfathering (Standard)**

- **Exceptions**

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

# Resources for Insurance

- **FEMA.GOV**

Search Close X

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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
  - Preferred Risk Rate

- **Flood Insurance Rate Maps**

- [www.msc.fema.gov](http://www.msc.fema.gov)

# Contact Information

**If you have more questions, please contact:**

**Frank Shockey**

**(312) 408-5321**

**[Frank.Shockey@fema.dhs.gov](mailto:Frank.Shockey@fema.dhs.gov)**

**James Sink**

**(312) 408-4421**

**[James.Sink@fema.dhs.gov](mailto:James.Sink@fema.dhs.gov)**

**NFIP Help Center: 1-800-427-4661**



# Hazard Mitigation Assistance Program Overview

Ohio Emergency Management Agency  
Mitigation Branch



FEMA



# Ohio EMA Mitigation Branch

The mission of the Mitigation Branch is to integrate hazard mitigation principles in a variety of ways to make Ohio communities more sustainable and citizens more resilient in the face of future disaster events.

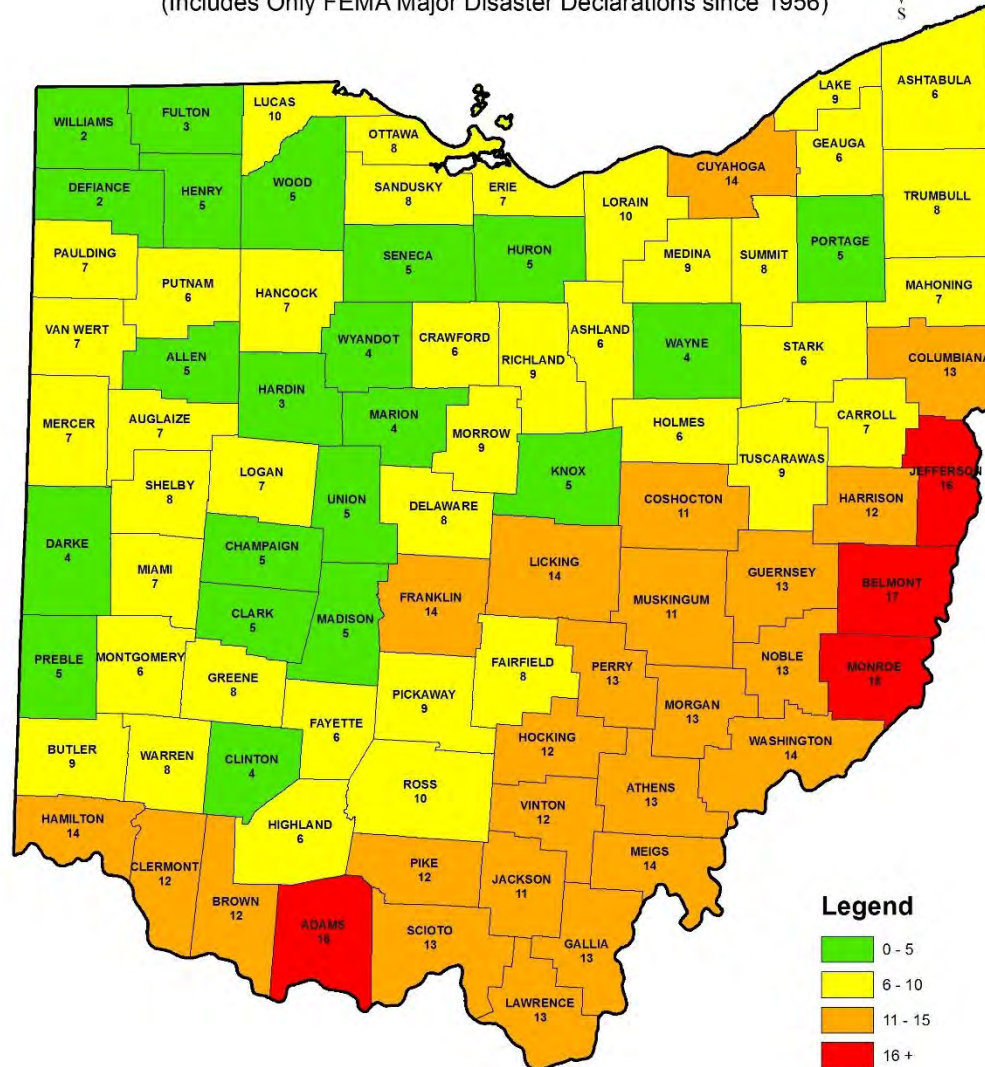


- Develop and maintain the SHMP
- Assist Ohio communities in local mitigation planning efforts
- Administer FEMA's Hazard Mitigation Assistance grant programs
- Chair the State Hazard Mitigation Team



# Ohio is Disaster Prone!

Ohio Presidential Disaster Declarations  
(Includes Only FEMA Major Disaster Declarations since 1956)



### Legend

- 0 - 5
- 6 - 10
- 11 - 15
- 16 +



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# What is Hazard Mitigation?

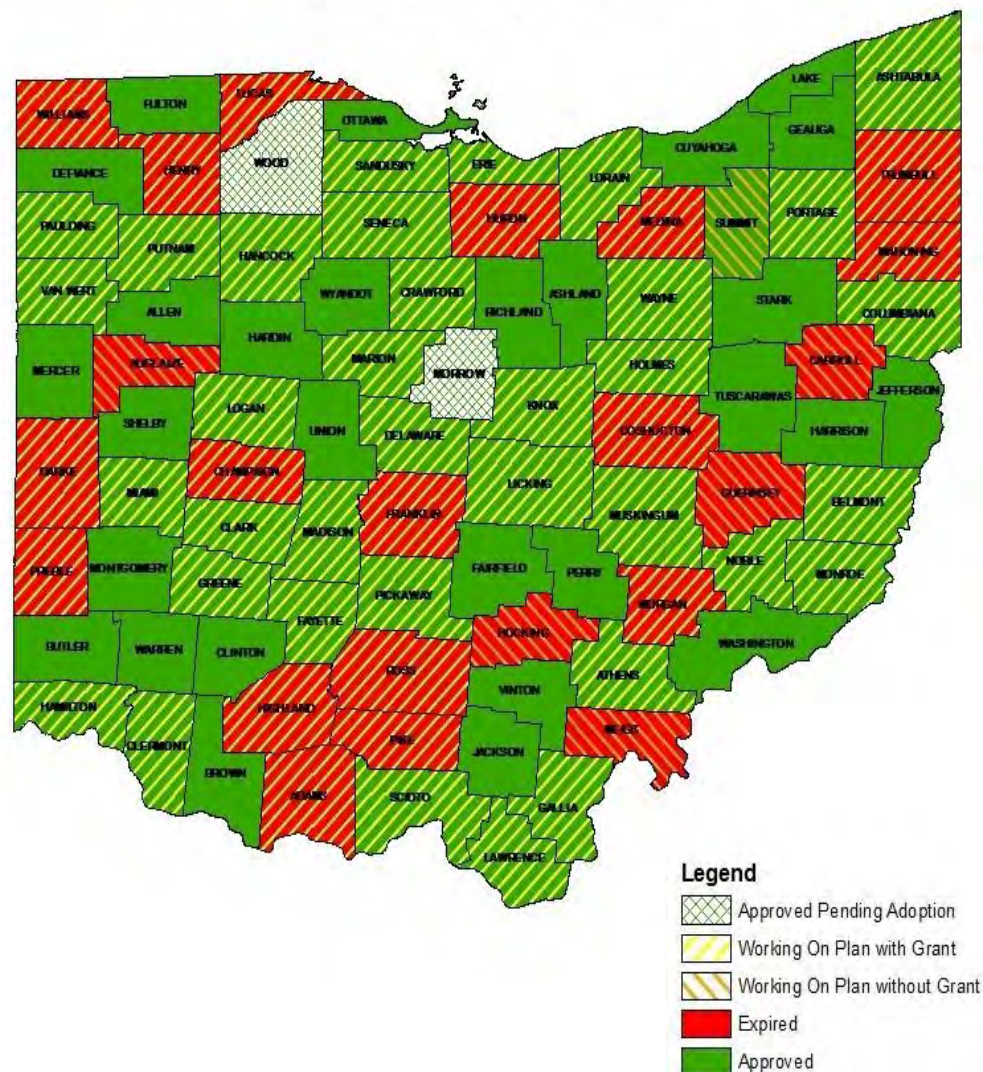
- **Any sustained action taken to reduce long-term risk to people and property from hazards and their effects.**
  - **Acquisition/demolition**
  - **Elevation**
  - **Storm water infrastructure**
  - **Tornado safe rooms**
  - **Flood insurance**
  - **Building, zoning and floodplain management codes**
  - **Wetland and riparian area protection**



# Current Local Hazard Mitigation Plan Status

- **Foundation of mitigation**
- **Hazard Identification and Risk Assessment**
- **Identifies and evaluates mitigations actions**
- **Must be updated and approved by FEMA every 5 years**

LHMP Status as of 8/29/18





# Unified Hazard Mitigation Assistance

- **Pre-Disaster Mitigation (PDM)**
- **Flood Mitigation Assistance (FMA)**
- **This year's application period opens on 10/1/2018, Contact Ohio EMA if you have questions.**



## Hazard Mitigation Assistance Guidance

Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program

*February 27, 2015*



**FEMA**

Federal Emergency Management Agency  
Department of Homeland Security  
500 C Street, S.W.  
Washington, DC 20472



**FEMA**

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# Unified Hazard Mitigation Assistance

- **Hazard Mitigation Grant Program (HMGP) – related to a Presidentially declared disaster.**
- **DR-4360 grant funding application period open until April 2019**
- **Contact Ohio EMA if you have questions.**



## Hazard Mitigation Assistance Guidance

Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program

*February 27, 2015*



**FEMA**

Federal Emergency Management Agency  
Department of Homeland Security  
500 C Street, S.W.  
Washington, DC 20472



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# FEMA Hazard Mitigation Assistance

- **Each program follows this basic process:**
  - Local governments apply for grants
  - State governments assist locals, review grants, and submit applications to FEMA
  - FEMA reviews grant applications and makes funding determinations; also provides technical assistance to states and locals

# FEMA HMA Programs

- **Cost effective**
- **EHP review**
- **0 – 25% non-Federal cost share requirement**
- **Projects must be consistent with local and state mitigation plans**
- **Community must participate and be in good standing with NFIP**



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# Question & Answer Session



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# Questions and Additional Information

## Visit:

[www.greatlakescoast.org](http://www.greatlakescoast.org)

[www.fema.gov/preliminaryfloodhazarddata](http://www.fema.gov/preliminaryfloodhazarddata)

[FEMA ArcGIS Online Preliminary Map Viewer](#)

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