



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

**December 5, 2017**



**FEMA**



# **TODAY'S AGENDA**

The Value of Updated Flood Maps for Your Community

Reviewing the Updated Flood Risk Data for Your County

Next Steps in the Map Adoption Process

Understanding Flood Insurance

# Why Are We Here?

**FEMA is here today to:**

- ▶ **Present Lake County's new flood maps**
- ▶ **Help you assess your community's flood risk**
- ▶ **Explain how the maps inform risk assessment and the National Flood Insurance Program (NFIP)**
- ▶ **Review your role in the next steps of this mapping process**
- ▶ **Answer your questions**

# The National Flood Insurance Program

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



Flood Hazard Mapping



Floodplain Management

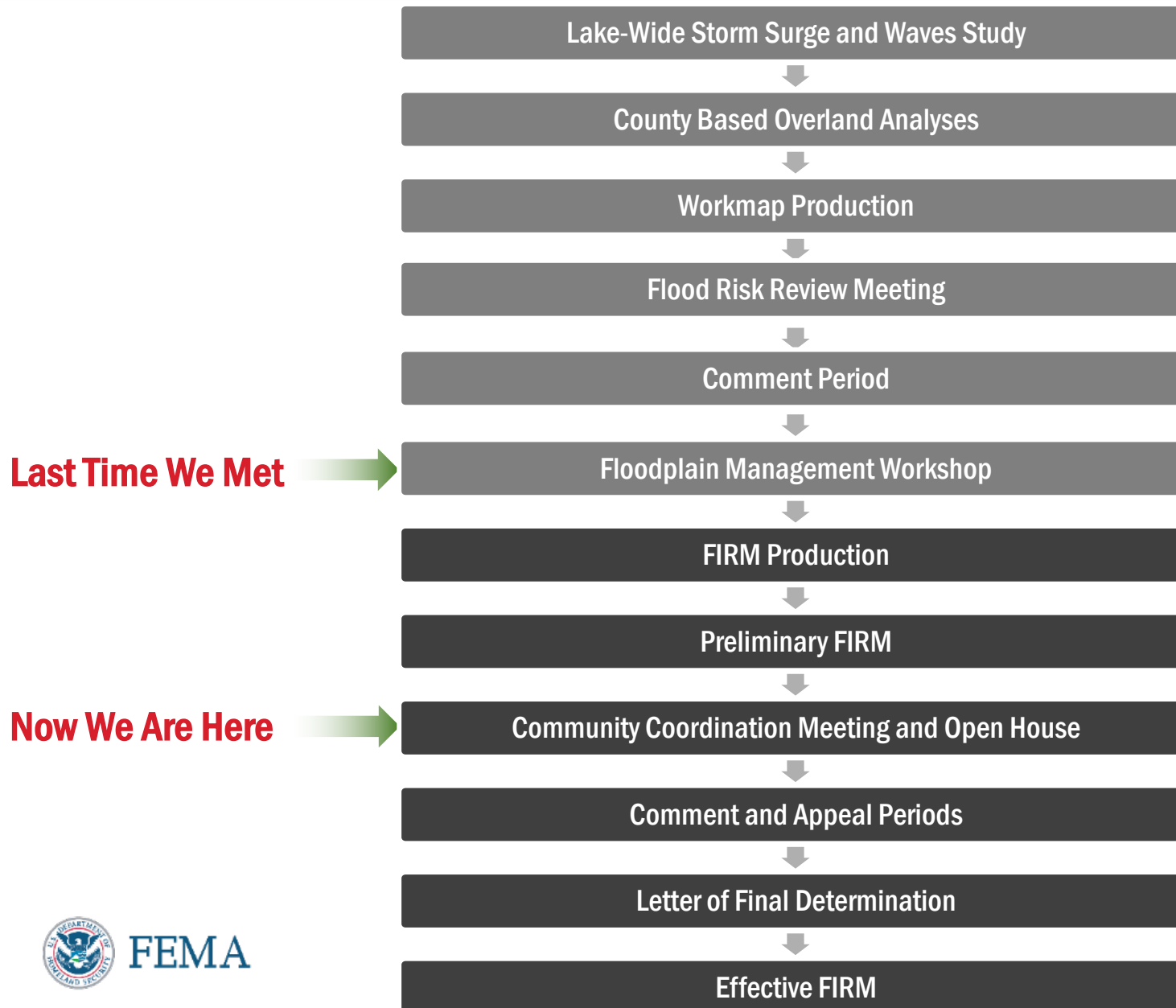


Flood Insurance



FEMA

# The Status of this Study



# The Value of Updated Flood Maps for Your Community



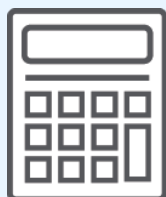
FEMA

**RiskMAP**  
Increasing Resilience Together

# Flood Maps are Used to Make Important Decisions



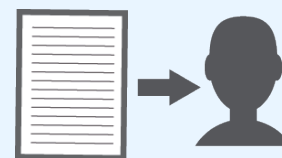
**To Identify  
and Assess  
Flood Risk**



**To Establish  
Rates for Flood  
Insurance**



**To Guide  
Local Land Use  
Decisions**



**To Inform  
Engineers  
and Developers**



**To Prepare  
Emergency  
Managers**



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# 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

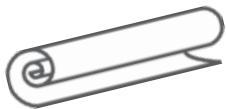


**FEMA**

**RiskMAP**  
Increasing Resilience Together

# Your Role in this Process

**As Local Officials, Floodplain Administrators, and Staff you can:**



**Provide  
technical  
review of  
preliminary  
data**



**Submit  
questions and  
comments  
to FEMA**



**Share new flood  
risk information  
with property  
owners and  
stakeholders**



**Identify  
mitigation  
needs and  
priorities**



**Update  
local plans,  
codes, and  
ordinances**



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# Reviewing the Updated Flood Risk Data for Your County



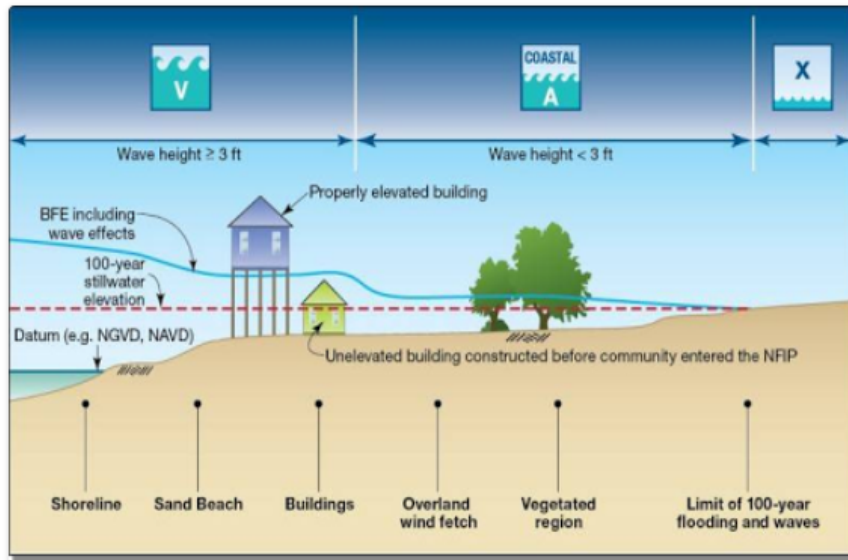
FEMA

**RiskMAP**  
Increasing Resilience Together

# 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**

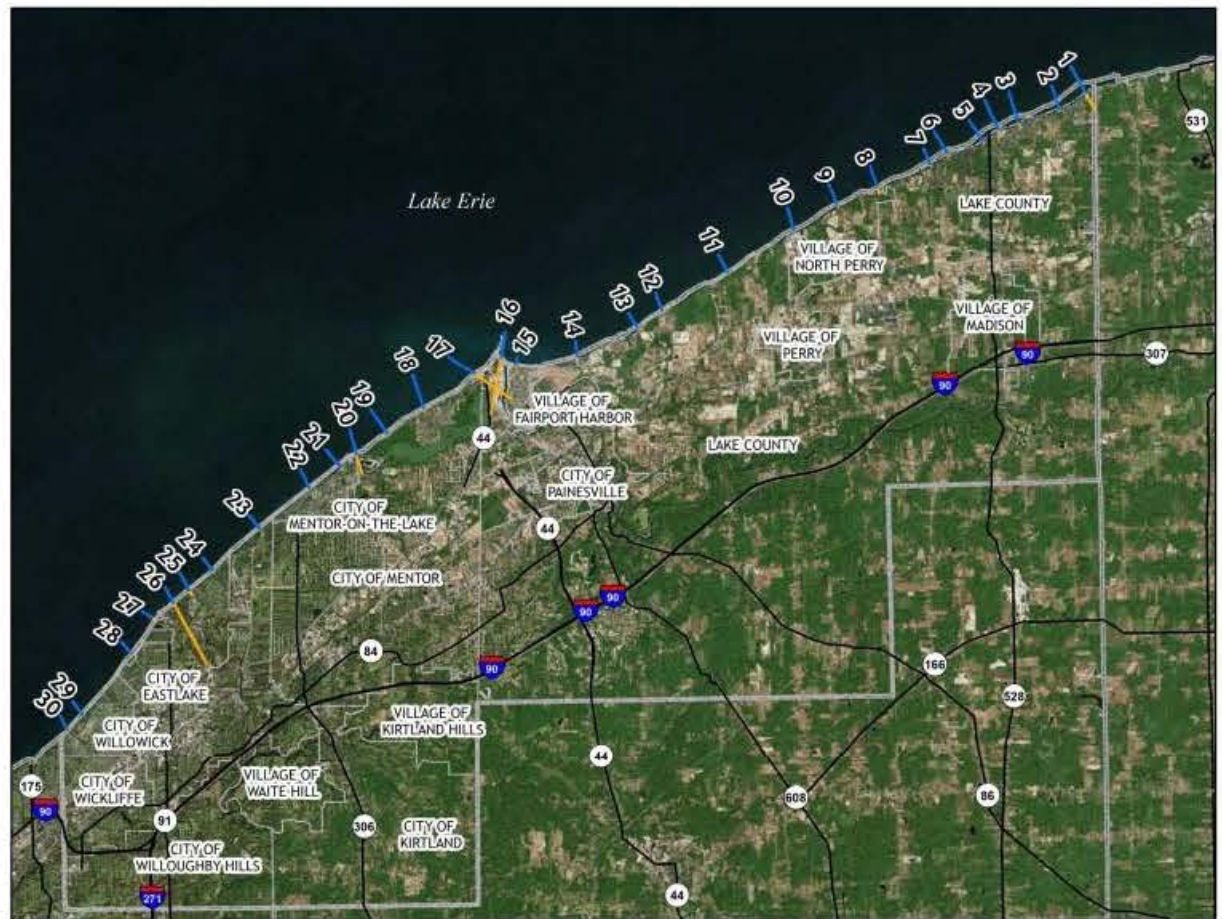


## ► Local/County Level Activities

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

# The Great Lakes Coastal Flood Study in Lake County

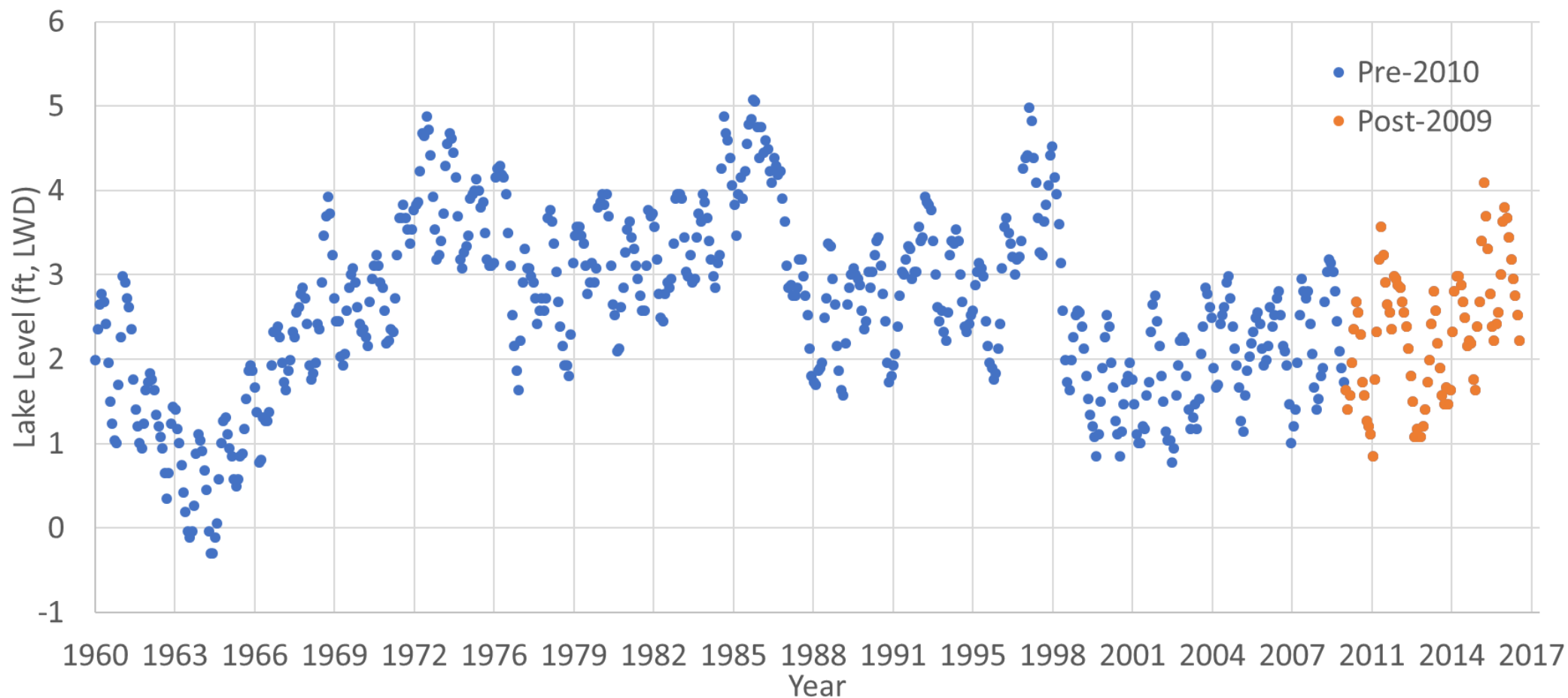
- ▶ **35 miles of coastline**
  - Coastal Hazard Analysis
    - 30 Coastal Transects
  - Riverine-Coastal Special Flood Hazard Area integration
  - Topography
    - 2012 U.S. Army Corp of Engineers Lake Erie LiDAR
    - 2006 Lake County Ohio Statewide Imagery Program (OSIP) LiDAR



FEMA

**RiskMAP**  
Increasing Resilience Together

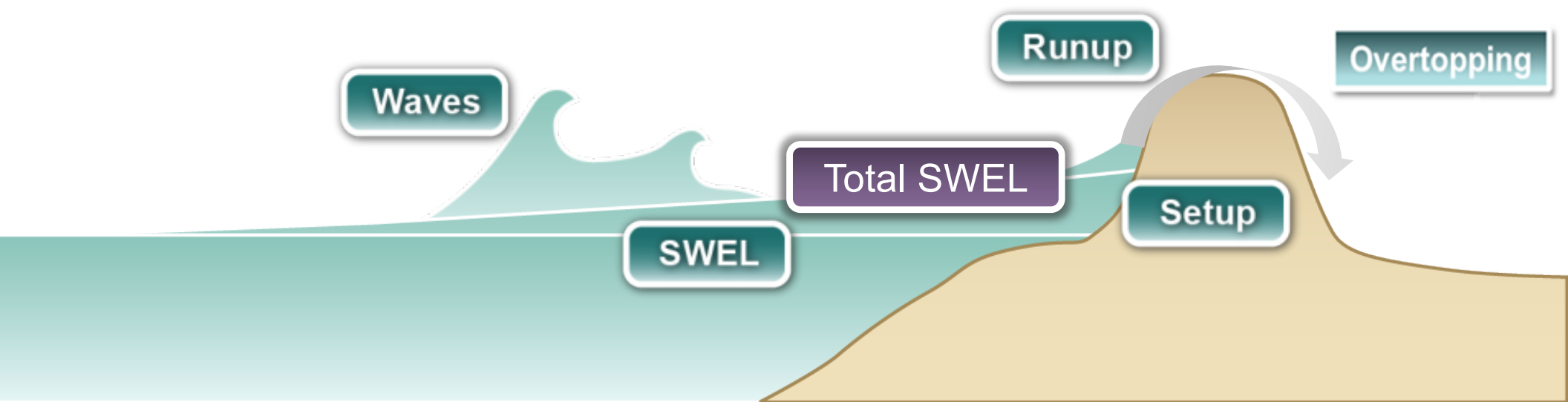
# Great Lakes Water Levels



FEMA

**RiskMAP**  
Increasing Resilience Together

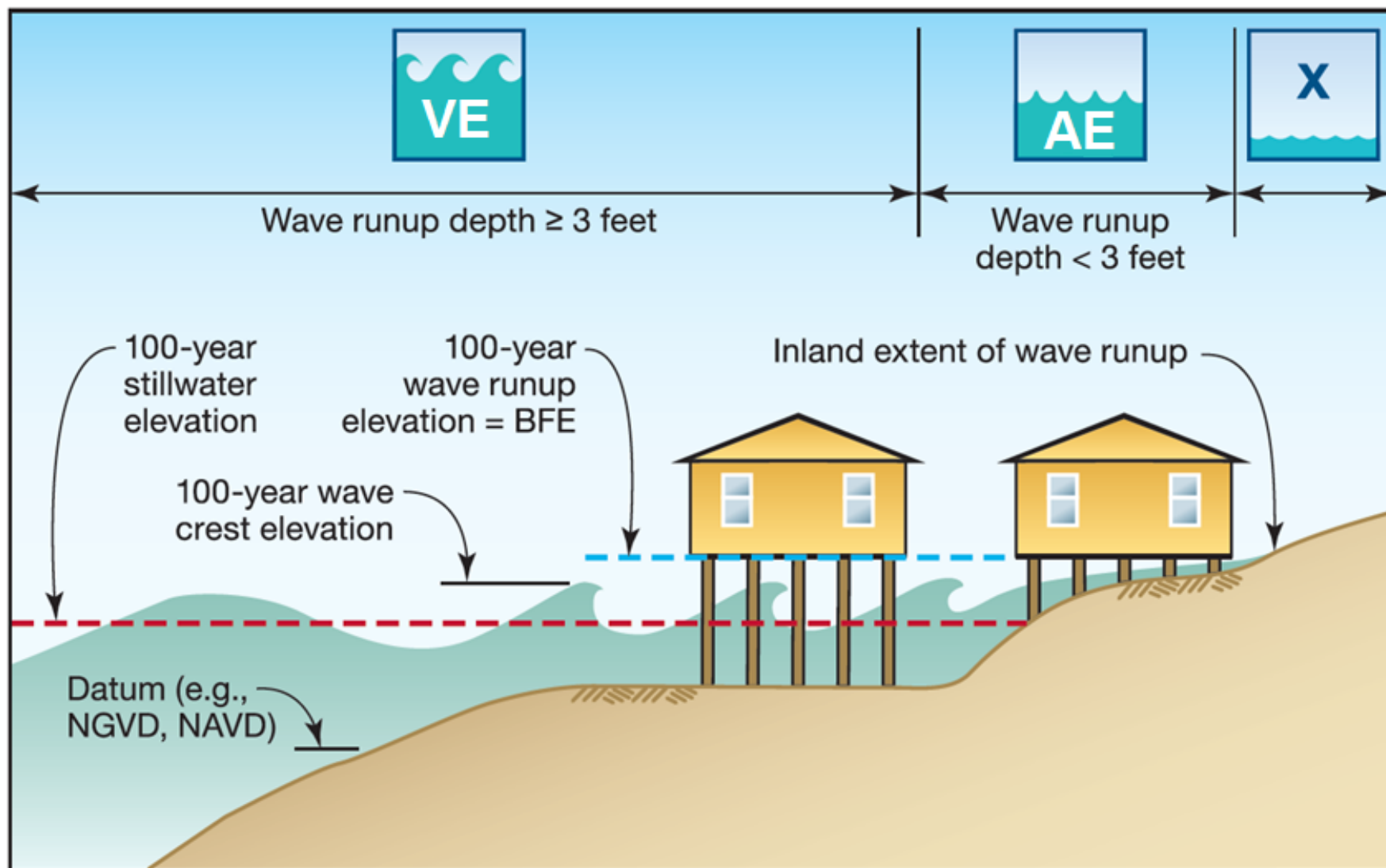
# Measuring Coastal Base Flood Elevation



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

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

# Runup Mapping



FEMA

**RiskMAP**  
Increasing Resilience Together

# 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



FEMA

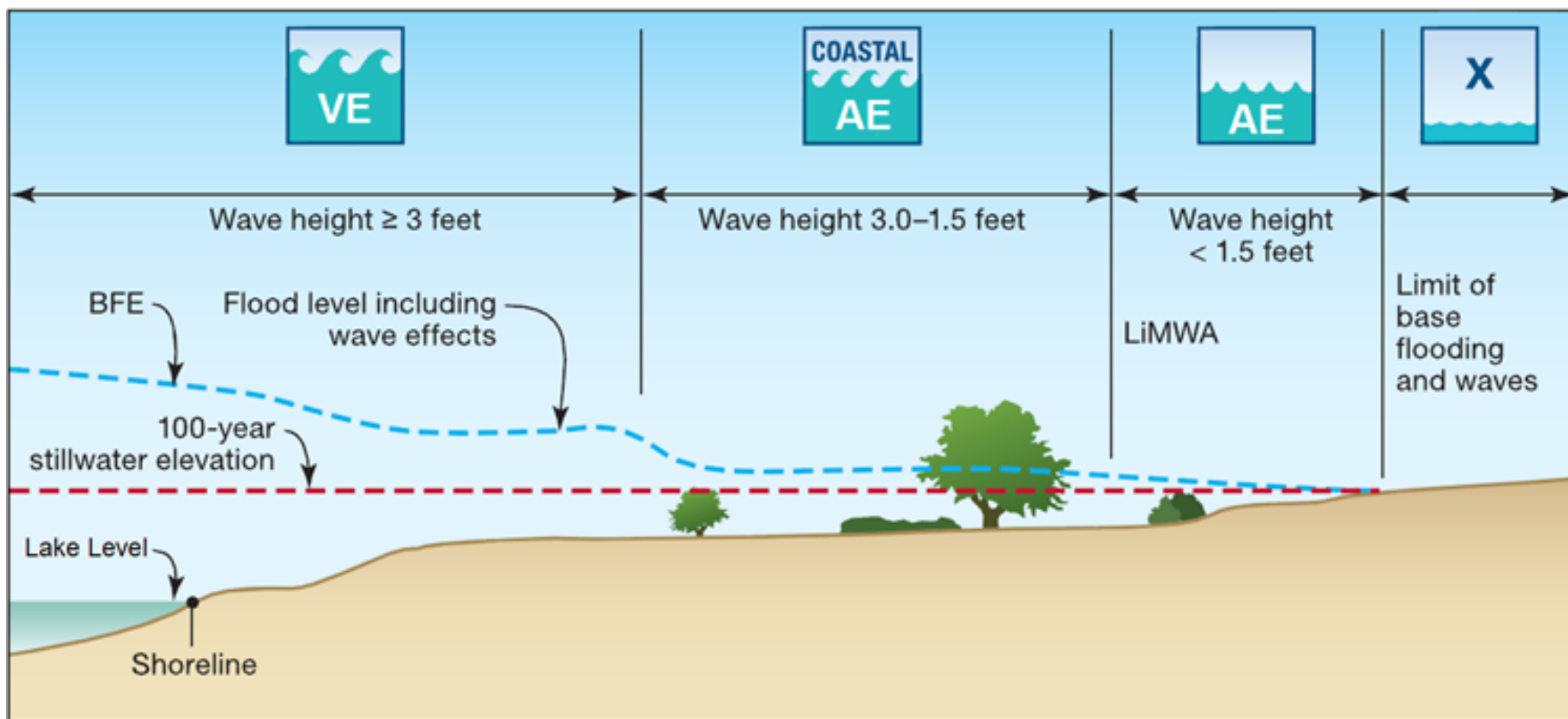
**RiskMAP**  
Increasing Resilience Together

# 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



FEMA

**RiskMAP**  
Increasing Resilience Together

# 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

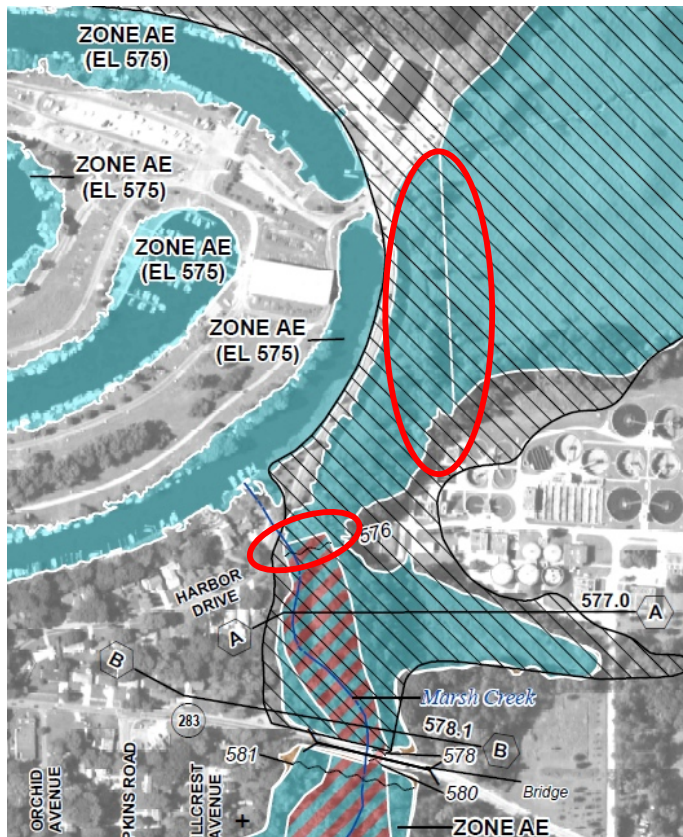
- Applied in areas subject to inundation by the 1-percent-annual-chance flood
- Wave heights < 3ft
- Subdivided into elevation zones & BFEs are assigned

## ▶ Zone AO

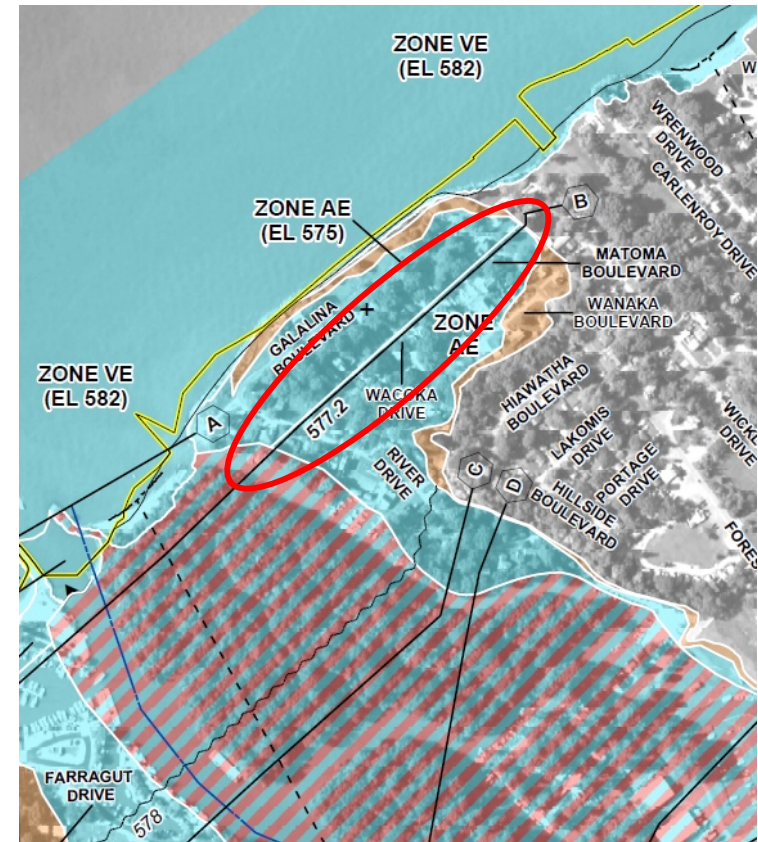
- Applied in areas of sheet-flow & shallow flooding

# Scope of Work: Integrating Riverine and Coastal Data

## Updated Coastal Stillwater BFE



## Effective Riverine BFE



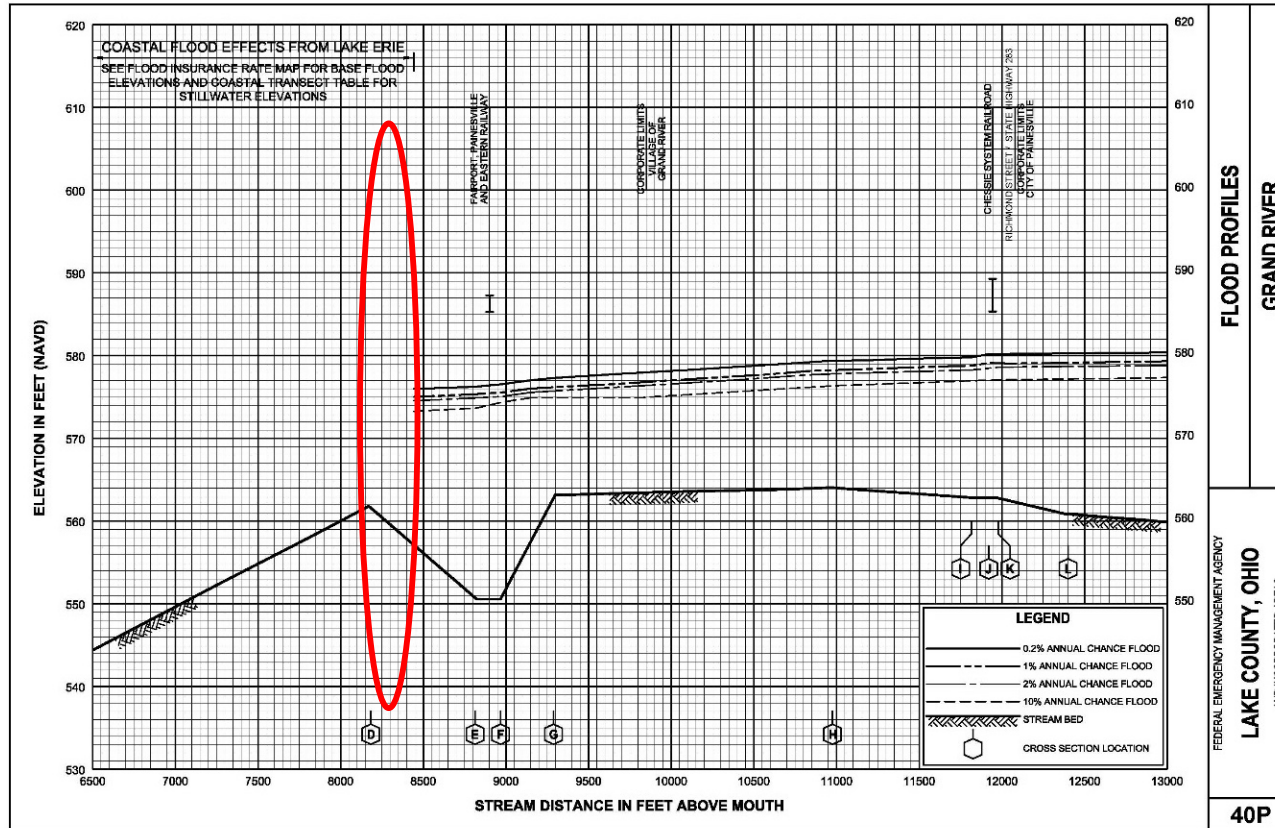
Re-delineation to updated LiDAR downstream of limits shown on FIRM (white line or Zone change) and in FIS (Floodway Data table 24) and Profile



FEMA

**RiskMAP**  
Increasing Resilience Together

# Scope of Work: Riverine-Coastal SFHA Integration



CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY <sup>3</sup> (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Grand River									
A	1,640	309	10,798	2.6	108	*	574.3 <sup>2</sup>	574.3	0.0
B	4,277	511	9,956	2.8		*	574.5 <sup>2</sup>	574.5	0.0
C	6,494	312	7,817	3.5		*	574.6 <sup>2</sup>	574.6	0.0
D	8,184	450	4,319	6.4		*	574.8 <sup>2</sup>	574.8	0.0
E	8,818	332	3,614	7.6		575.3	575.3	575.3	0.1
F	8,976	324	3,802	7.3		575.5	575.5	576.1	0.5

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



FEMA

**RiskMAP**  
Increasing Resilience Together

# Scope of Work: Riverine-Coastal SFHA Integration

- **Detailed Zone AE**
  - Chagrin River 11P
  - Grand River 39P & 40P
- **Approximate Zone A \***
  - Arcola Creek

\*No Profile/FWDT updates, only at confluence with Lake Erie

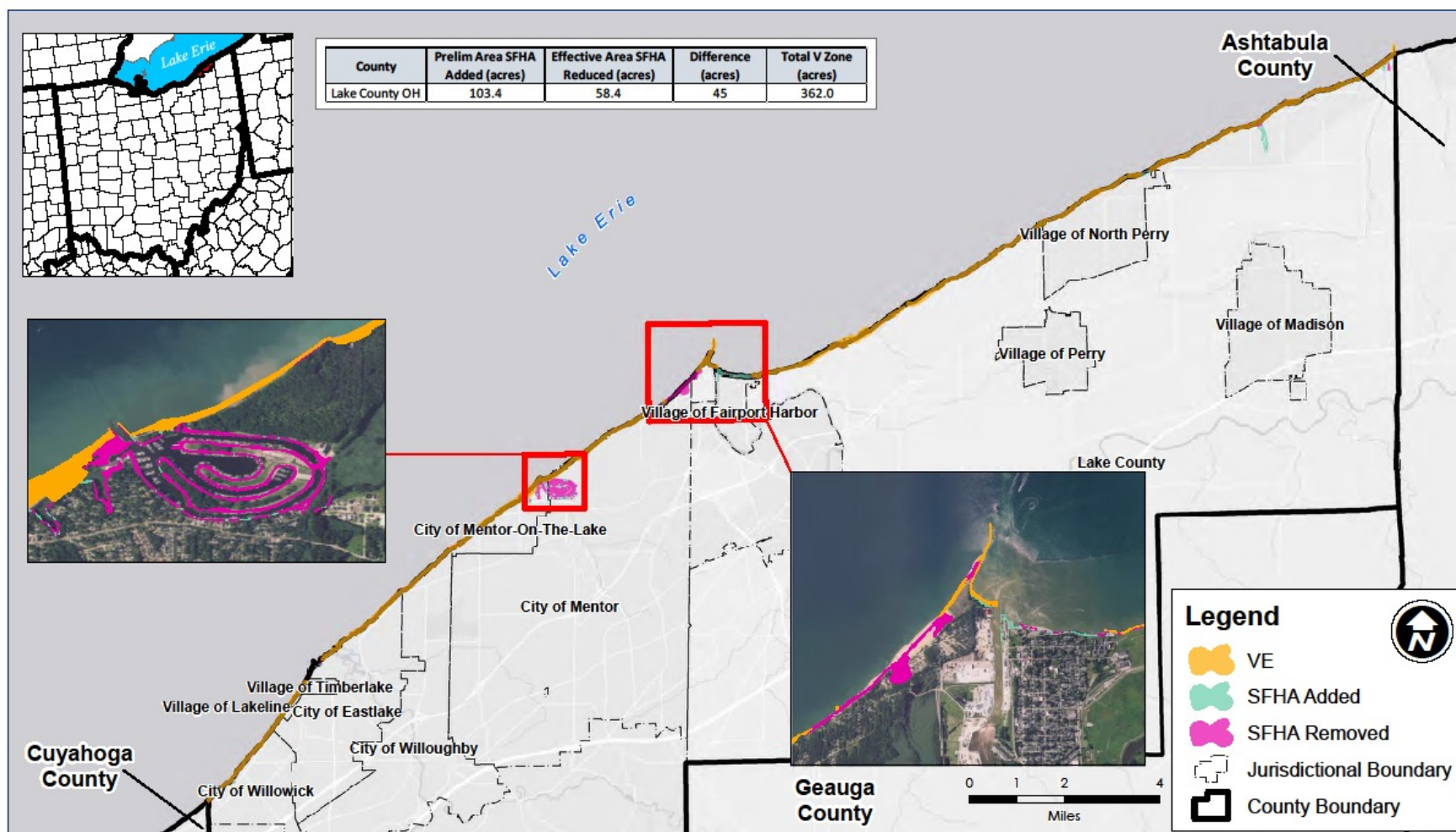
# What are “Changes Since Last FIRM” in Lake County ?

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

**In Lake 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 Lake County



**FEMA**

**RiskMAP**  
Increasing Resilience Together

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

SOMA-1

## PRELIMINARY SUMMARY OF MAP ACTIONS

Community: LAKE COUNTY

Community No: 390771

### 2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	00-05-2430A	06/29/2000	755 MEADOWLARK ROAD	3907710024C	39085C0107G
LOMA	06-05-B711A	03/23/2006	TOWNSHIP OF MADISON, TRACT 3, LOT 4 -- 6609 SWETLAND ROAD (OH)	3907710012C	39085C0058G
LOMA	08-05-0750A	01/29/2008	SUBLOT 1129, CUMINGS BEACH PARK SUBDIV -- 1497 DAVISTA AVENUE	3907710012C	39085C0058G
LOMA	08-05-3658A	07/02/2008	SUBLOTS 1307-1308, CUMINGS BEACH PARK SUBDIVISION -- 1337 DAVISTA AVENUE	3907710012C	39085C0058G
LOMA	10-05-7048A	11/16/2010	A PORTION OF LOT 91 -- 3080 TOWNLINE ROAD	39085C0061F	39085C0061G
LOMA	12-05-0069A	10/11/2011	SUBLOT 27, MEADOWS SUBDIVISION -- 6718 DAVE DRIVE	39085C0058F	39085C0058G
LOMA	12-05-5656A	08/21/2012	A PORTION LOTS 9 & 10, TRACT 1 -- 1945 DOCK ROAD	39085C0059F	39085C0059G
LOMA	13-05-3169A	02/26/2013	A PORTION OF LOT 16, TRACT 4 -- 641 NEWELL STREET	39085C0107F	39085C0107G

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

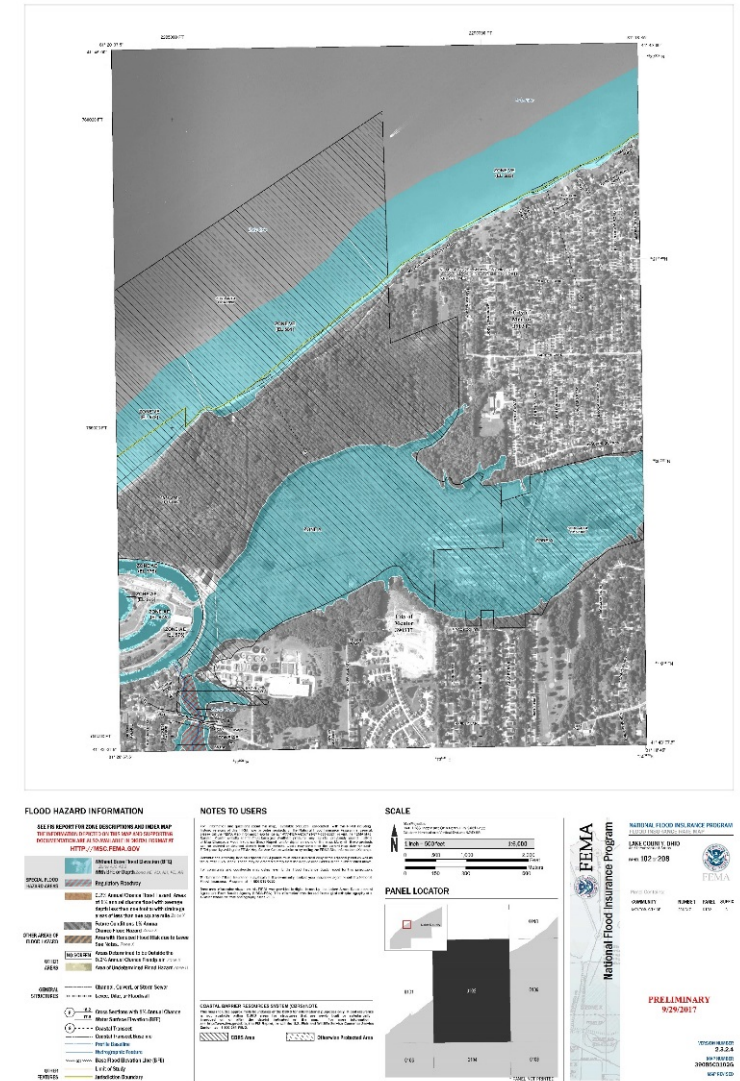
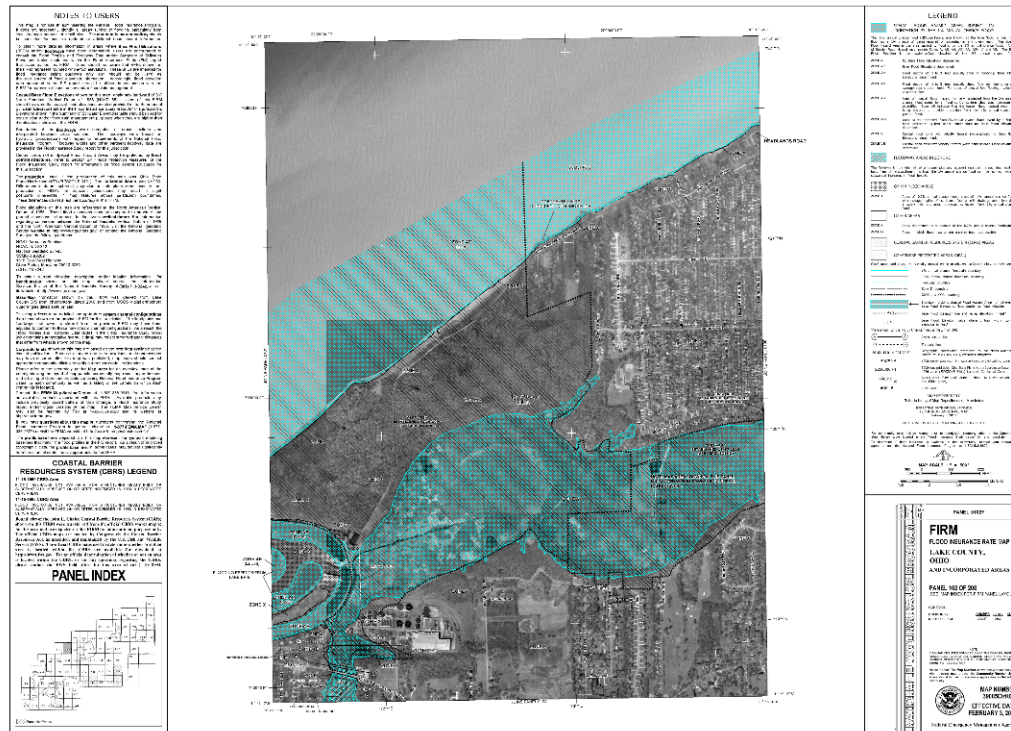
1. Incorporated
2. Not Incorporated (validated)
  - LOMCs on Revised Panels
  - LOMCs on Unrevised Panels
3. Superseded
4. To be Re-determined

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



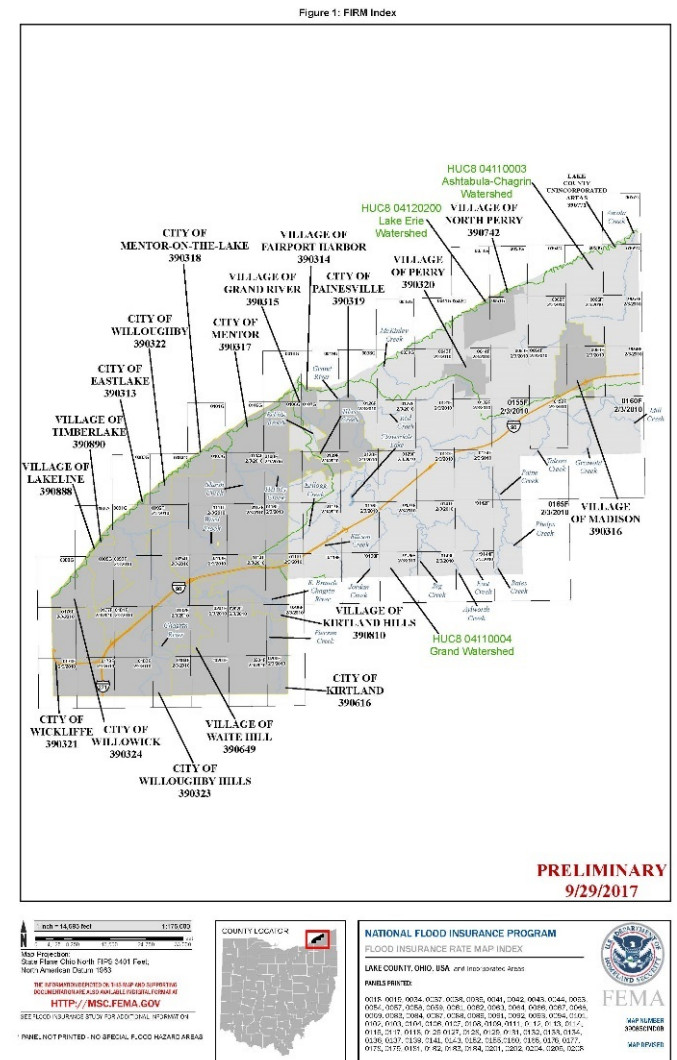
# NOTE: Format Changes to the Flood Insurance Study (FIS)

## 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



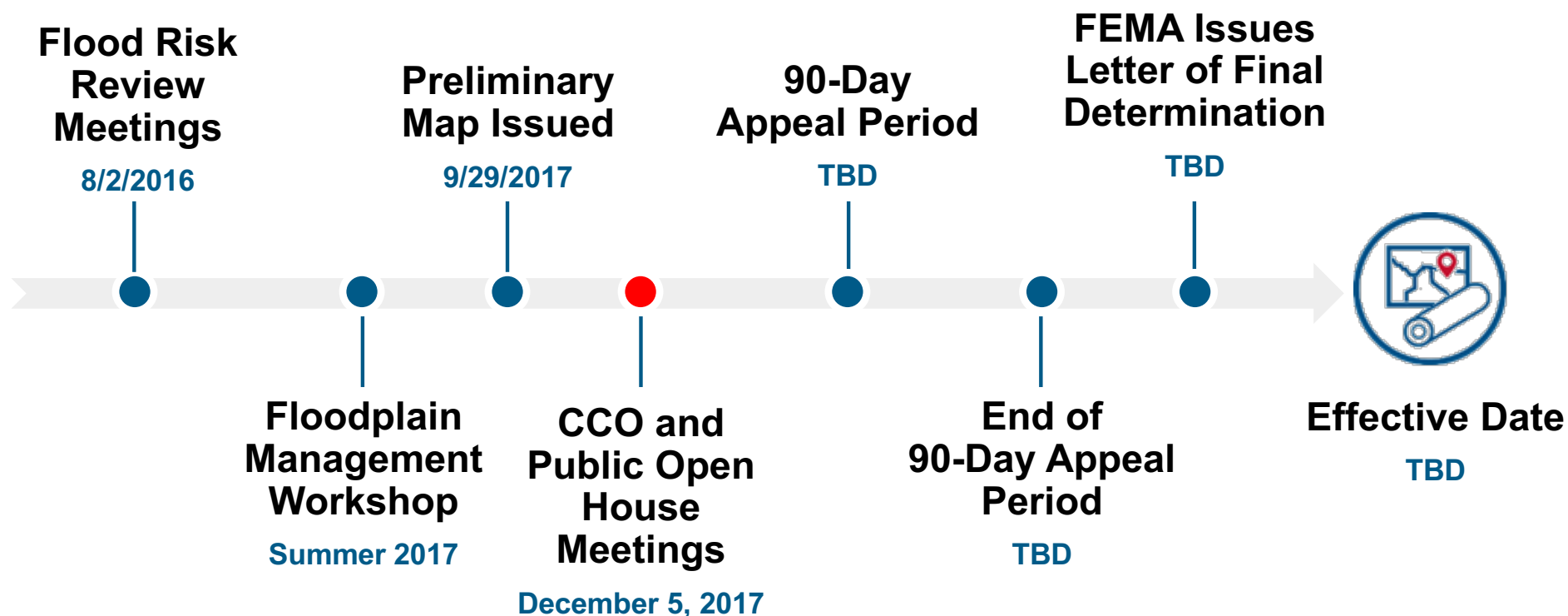
# Next Steps in the Map Adoption Process



FEMA

**RiskMAP**  
Increasing Resilience Together

# Timeline for Lake County



FEMA

**RiskMAP**  
Increasing Resilience Together

# 4-Step Pre-Adoption Process



**Inform the  
Community**



**Gather Comments  
and Additional Data**



**Appeal Process**



**LFD Issued**



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# #1: Inform the Community – Open House

- ▶ **Notifications to the Public**
- ▶ **Property Identification Mapping Assistance**
- ▶ **Comment Sheets Collected for Review**
- ▶ **Attendees Notified as Process Moves Forward**



## #2: Gather Community Comments

- ▶ **Comment forms are available at the Open House**
- ▶ **Homeowners submit their comments to local community officials**
- ▶ **Local community officials forward comments to FEMA Region V Service Center**



# #3: Appeal Process

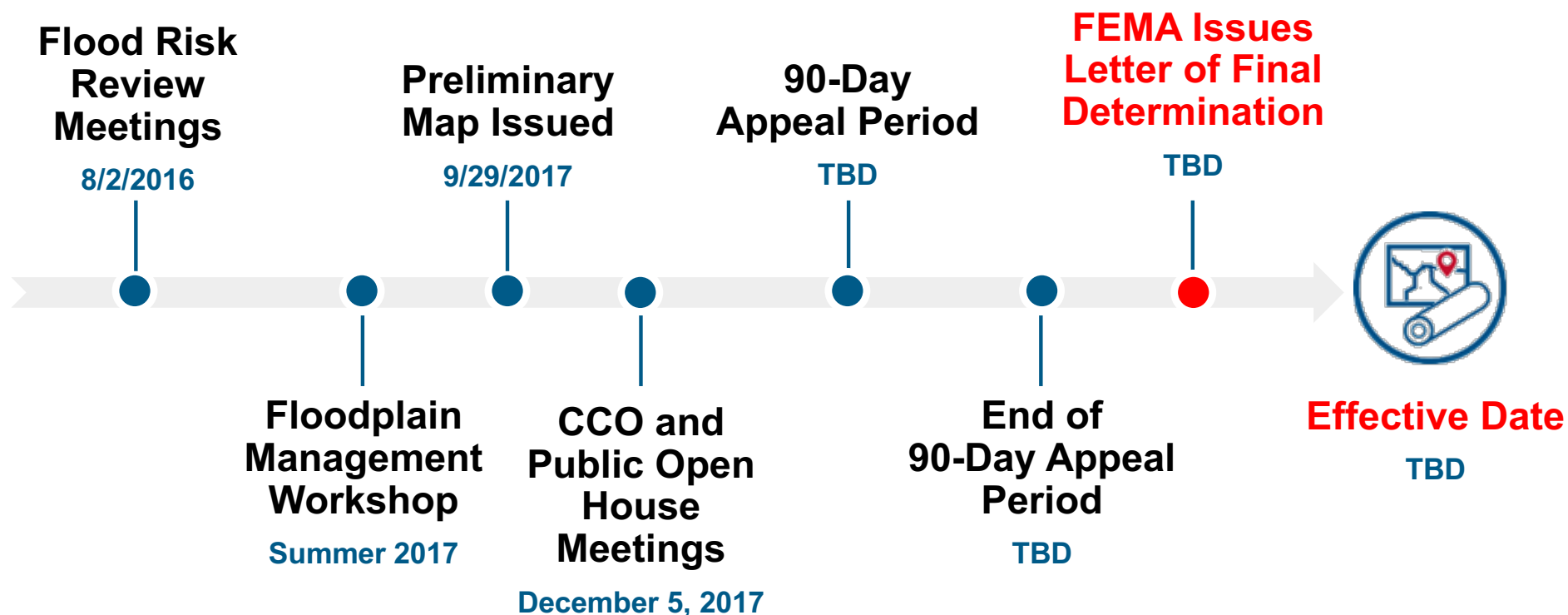
- ▶ **Appeal Period is 90 days**
- ▶ **Publication of Notice in Federal Register**
  - Notification to communities by letter including two local newspaper publications
- ▶ **All are welcome to submit information**
  - FEMA recommends directing comments through local community officials to provide a consolidated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



# Understanding Floodplain Management Ordinance Requirements



FEMA

**RiskMAP**  
Increasing Resilience Together

# 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 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.**

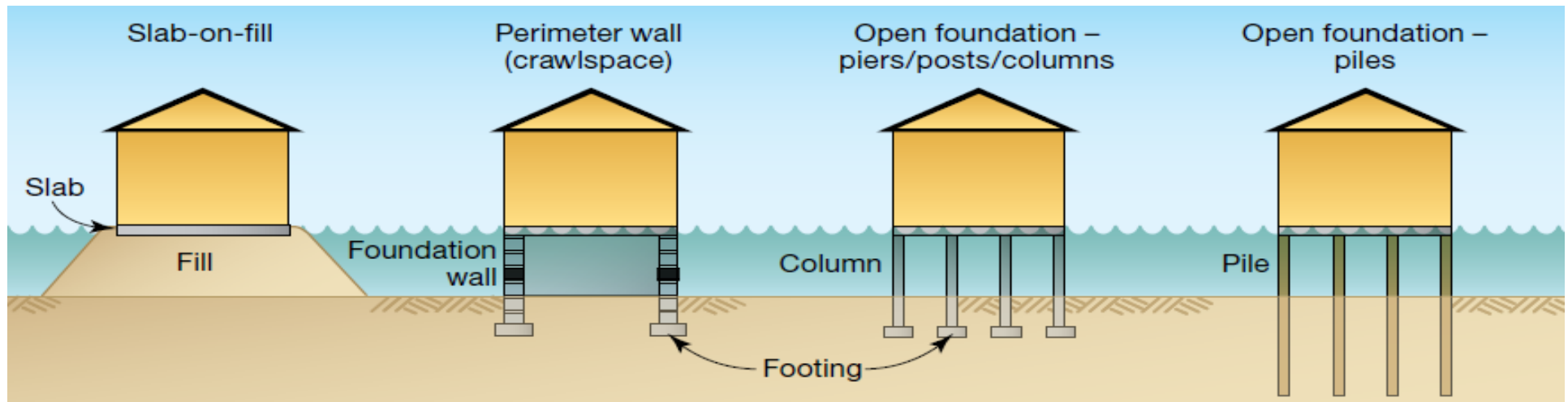
# Differences in Development Requirements

## 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.

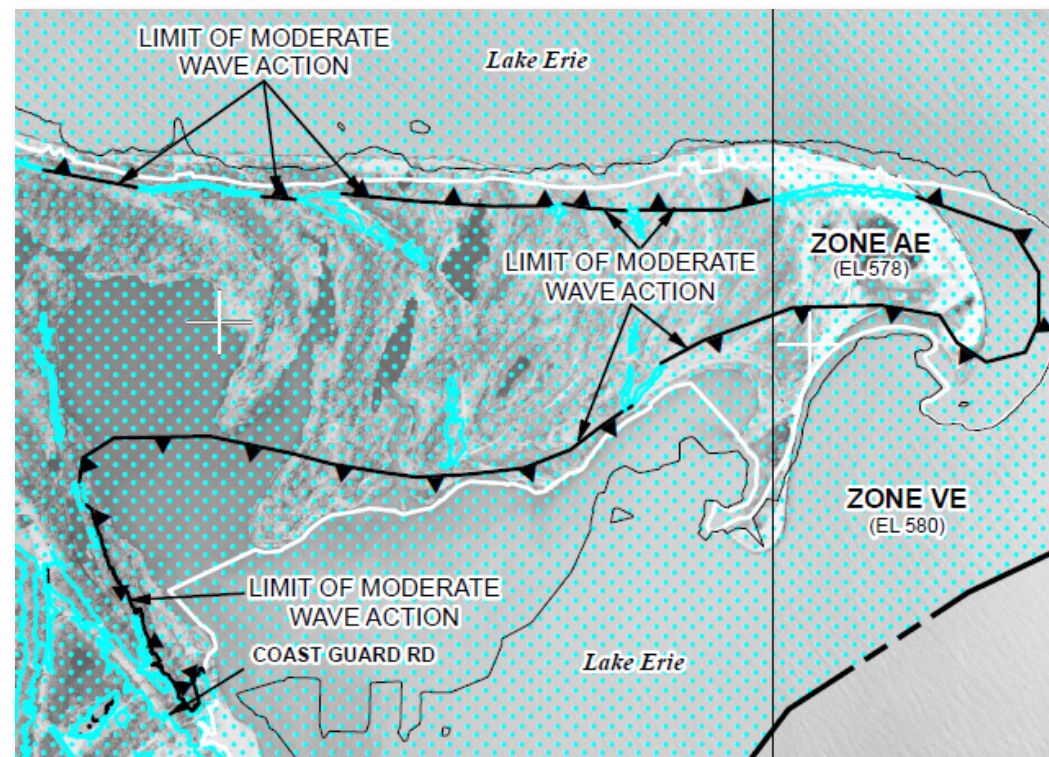
## V Zones

- 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

**RiskMAP**  
Increasing Resilience Together

# 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.



**Pre-FIRM**

**Post-FIRM**



FEMA

**RiskMAP**  
Increasing Resilience Together

# 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 Rates in Zone VE

## ► Subsidized Rate Class

- Structures are likely already shown in the SFHA (zone A, AE, A1-30, AH, or AO) on the prior FIRM, and
- In Standard Rated Policy
  - The rates may be somewhat higher than other rate classes and are receiving subsidy phase-out

## ► Actuarial (Elevation Based) Rate Class

- Built after first FIRM or New construction in V zones
- Rates are higher across the board based on obstructions: lattice work, horizontal member, enclosures, etc.
- Built correctly without obstruction can be less costly

# New Construction in Post-FIRM VE Zone

- ▶ **Don't expect, or predict, “affordable” flood insurance to be available for new construction in Zone VE**
- ▶ **Hold design professionals and construction contractors to the highest standard in Zone VE**
- ▶ **Avoid it if possible**

# Insurance Rating and Product Possibilities

## ► 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

## ► Newly Mapped Preferred Risk Policy

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

# Insurance Rating and Product Possibilities

## ▶ Grandfathering (Standard)

### ▶ Exceptions

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

## ▶ Newly Mapped Preferred Risk Policy

### ▶ 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

# Resources for Insurance

## ► FEMA.GOV

Search Close X

---

## ► 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](http://www.msc.fema.gov)

# **Hazard Mitigation Assistance Program Overview**

**Ohio Emergency Management Agency  
Mitigation Branch**



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# 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



(Current as of March 17, 2019 – there have been no federal declarations since 2013)

County	Declarations
Williams	3
Pulton	4
Lucas	12
Ottawa	9
Lake	12
Ashtabula	10
Cuyahoga	16
Geauga	9
Trumbull	10
DeWesse	3
Henry	5
Wood	6
Sandusky	10
Erie	10
Lorain	14
Portage	7
Paulding	8
Putnam	8
Hancock	8
Seneca	8
Huron	9
Madison	10
Summit	10
Mahoning	8
Van Wert	8
Allen	6
Hardin	7
Wyandot	8
Crawford	9
Ashland	7
Village	5
Stark	8
Columbiana	13
Merger	8
Agate	8
Shelby	10
Logan	9
Union	8
Marion	6
Morrow	12
Holmes	7
Carroll	8
Darke	6
Miami	8
Champaign	7
Clark	7
Madison	6
Franklin	17
Licking	14
Coshocton	11
Tuscarawas	10
Harrison	13
Preble	6
Montgomery	7
Greene	11
Fayette	6
Pickaway	10
Fairfield	10
Perry	12
Maskingum	11
Geerney	14
Delmont	17
Noble	12
Morgan	12
Butler	11
Warren	10
Clinton	6
Highland	7
Ross	10
Hocking	13
Athens	14
Washington	15
Hamilton	13
Clermont	13
Brown	13
Adams	14
Pike	12
Scioto	13
Jackson	11
Meigs	14
Gallia	13
Lawrence	13

Legend:

- 15 or More
- 10 - 14
- 5 - 9
- 1-4

**RiskMAP**  
Increasing Resilience Together

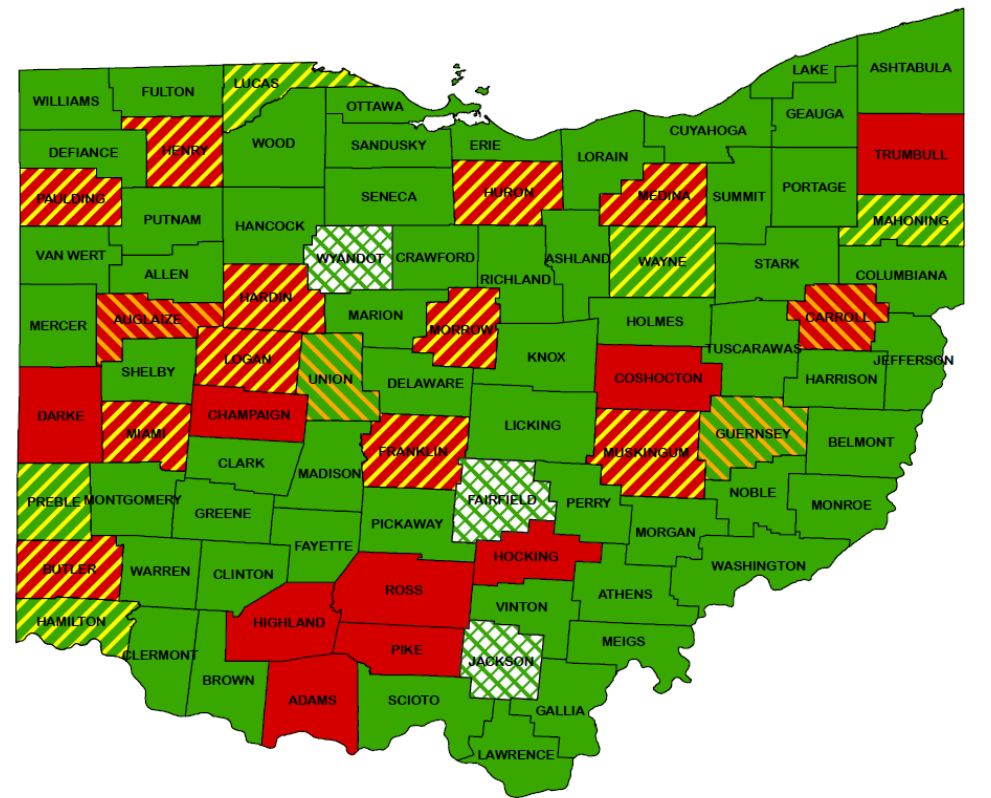
# What is Hazard Mitigation?

- ▶ **Any sustained action taken to reduce long-term risk to people and property from hazards and their effects.**
  - ▶ **Acquisition/demolition**
  - ▶ **Elevation**
  - ▶ **Storm water infrastructure**
  - ▶ **Flood insurance**
  - ▶ **Tornado safe rooms**
  - ▶ **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**

Local Hazard Mitigation Plan  
Status as of 11/22/17



## Legend

- Approved Pending Adoption
- Working on Plan with Grant
- Working on Plan without Grant
- Active
- Expired

# Unified Hazard Mitigation Assistance

- ▶ **Pre-disaster mitigation grant programs:**
  - Pre-Disaster Mitigation (PDM)
  - Flood Mitigation Assistance (FMA)
- **Post-disaster mitigation grant:**
  - Hazard Mitigation Grant Program (HMGP)



## 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**

# OEMA Mitigation Branch Contacts

**Web:** <https://sharpp.dps.ohio.gov/ohiosharpp/>

**FAX** (614) 799-3526

**Steve Ferryman, CFM**  
State Hazard Mitigation Officer  
(614) 799-3539  
saferryman@dps.ohio.gov

**Jacob Hoover, AICP, CFM**  
Mitigation Supervisor  
(614) 799-3538  
jmhoover@dps.ohio.gov

**Luan Nguyen**  
Mitigation Planner  
(614) 799-3531  
lknguyen@dps.ohio.gov

**Sharon Rolf**  
Mitigation Specialist  
(614) 799-3530  
srolf@dps.ohio.gov

**Daniel Clevidence, CFM**  
Mitigation Specialist  
(614) 799-3533  
dtclevidence@dps.ohio.gov

**Keven Clouse**  
Mitigation Specialist  
(614) 799-7163  
kclouse@dps.ohio.gov

**Alex Strawser**  
Mitigation Intern  
(614) 799-3681  
ajstrawser@dps.ohio.gov



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# Question & Answer Session



FEMA

**RiskMAP**  
Increasing Resilience Together

# 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](#)**

**Contact:**

**STARR II (Contractor)**

**Lisa Bailen**

**502-212-5072**

**[Lisa.Bailen@stantec.com](mailto:Lisa.Bailen@stantec.com)**

**FEMA Region V**

**Ken Hinterlong**

**312-408-5529**

**[Ken.Hinterlong@fema.dhs.gov](mailto:Ken.Hinterlong@fema.dhs.gov)**



**FEMA**

**RiskMAP**  
Increasing Resilience Together

# Next Step: Open House



FEMA

**RiskMAP**  
Increasing Resilience Together