



ERIE COUNTY COMMUNITY CONSULTATION OFFICERS (CCO) MEETING

November 29, 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?

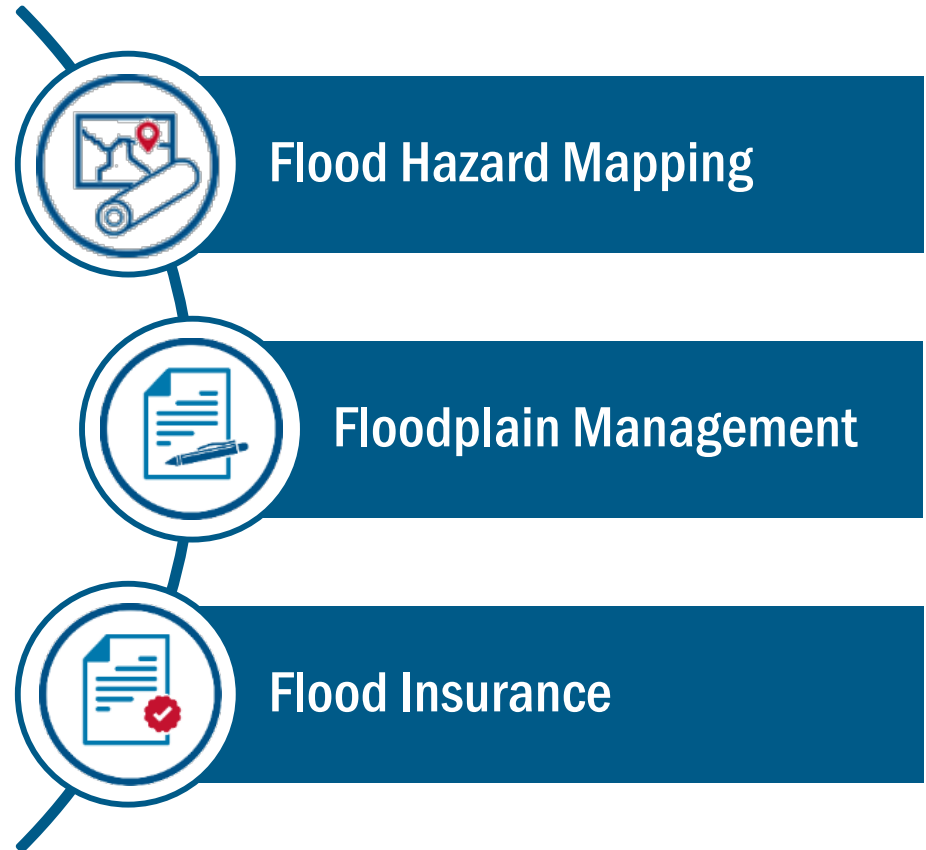
FEMA is here today to:

- ▶ **Present Erie County's New Flood Insurance Rate Maps (FIRMs)**
- ▶ **Help You Assess Your Community's Flood Risk**
- ▶ **Explain How the FIRMs Inform Risk Assessment & the National Flood Insurance Program (NFIP)**
- ▶ **Review Your Role in the Next Steps of the Mapping Process**
- ▶ **Answer Your Questions**



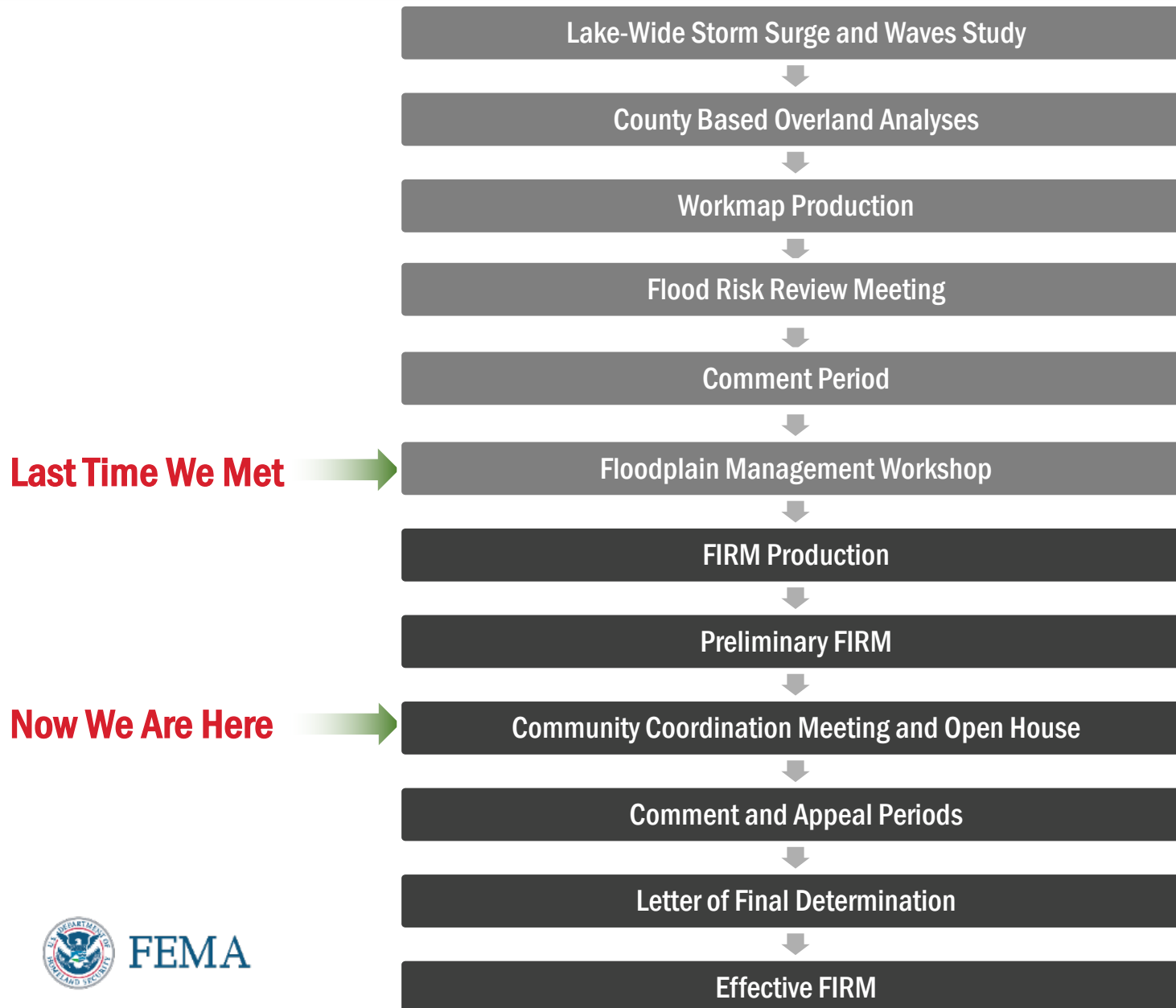
The National Flood Insurance Program

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



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The Status of this Study



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The Value of Updated Flood Maps for Your Community



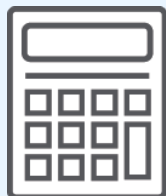
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Flood Maps are Used to Make Important Decisions



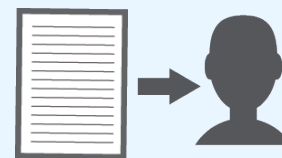
**To Identify
and Assess
Flood Risk**



**To Establish
Rates for Flood
Insurance**



**To Guide
Local Land Use
Decisions**



**To Inform
Engineers
and Developers**



**To Prepare
Emergency
Managers**



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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



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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**



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Reviewing the Updated Flood Risk Data for Your County



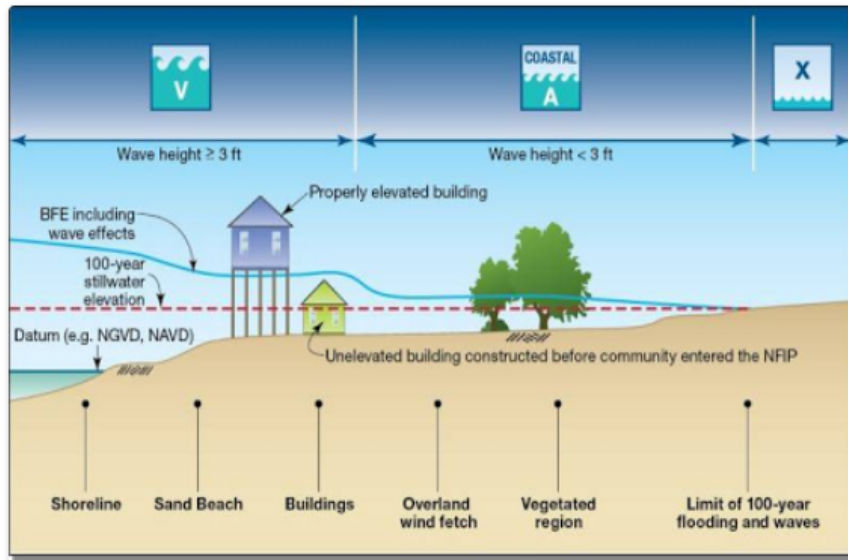
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The Great Lakes Coastal Flood Study Approach

► 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 Erie County

► 72 miles of coastline

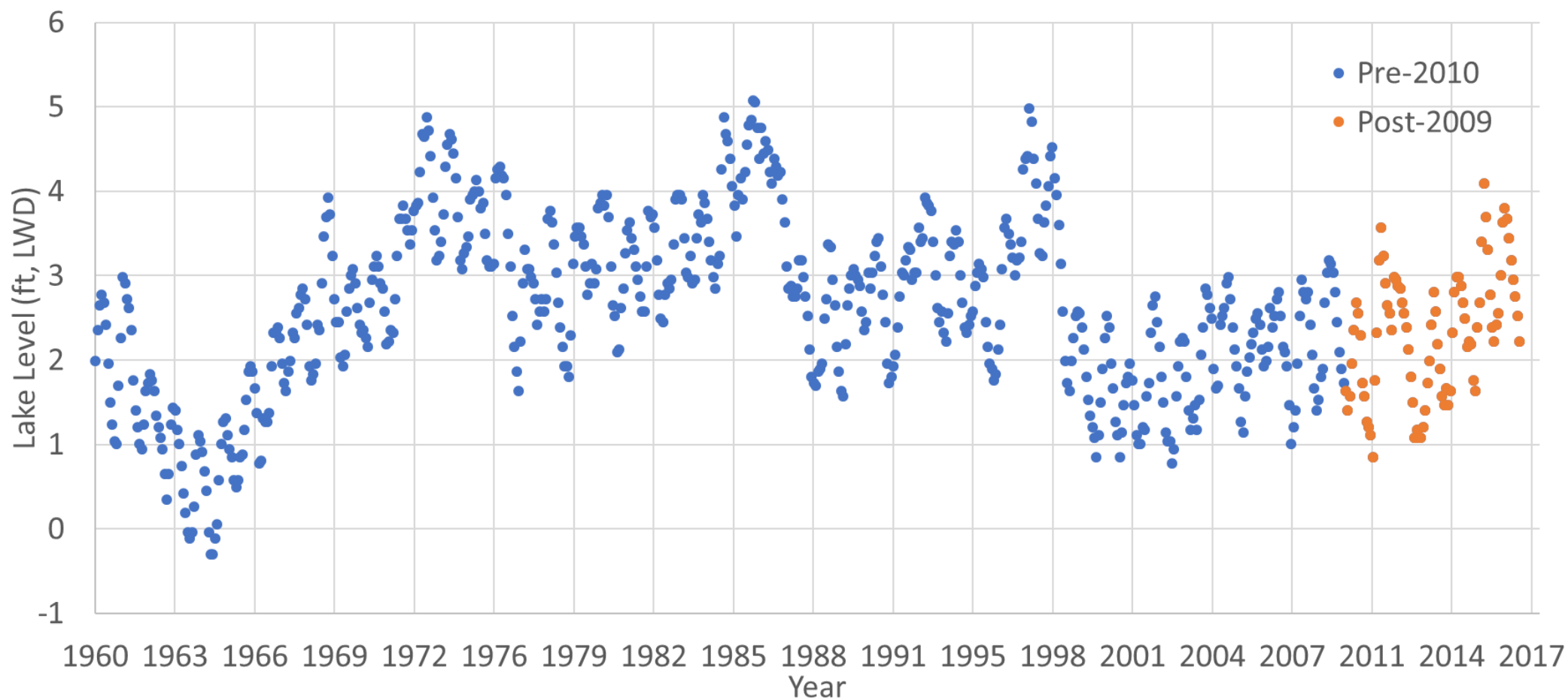
- Coastal Hazard Analysis
 - 56 Coastal Transects
- Riverine-Coastal Special Flood Hazard Area integration
- Topography
 - 2012 U.S. Army Corp of Engineers Lake Erie LiDAR
 - 2006 Erie County Ohio Statewide Imagery Program (OSIP) LiDAR



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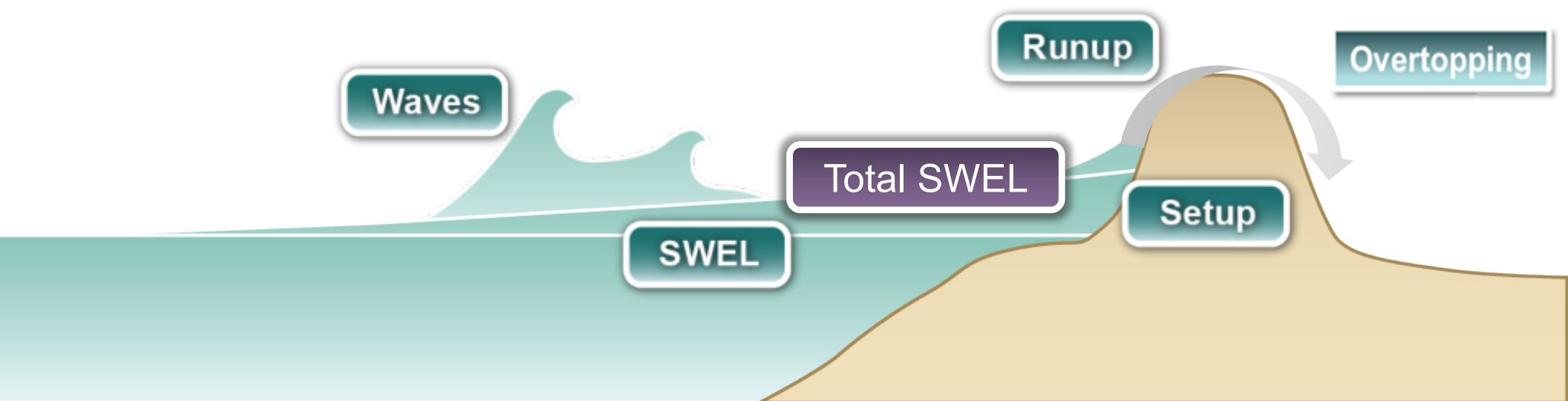
Great Lakes Water Levels



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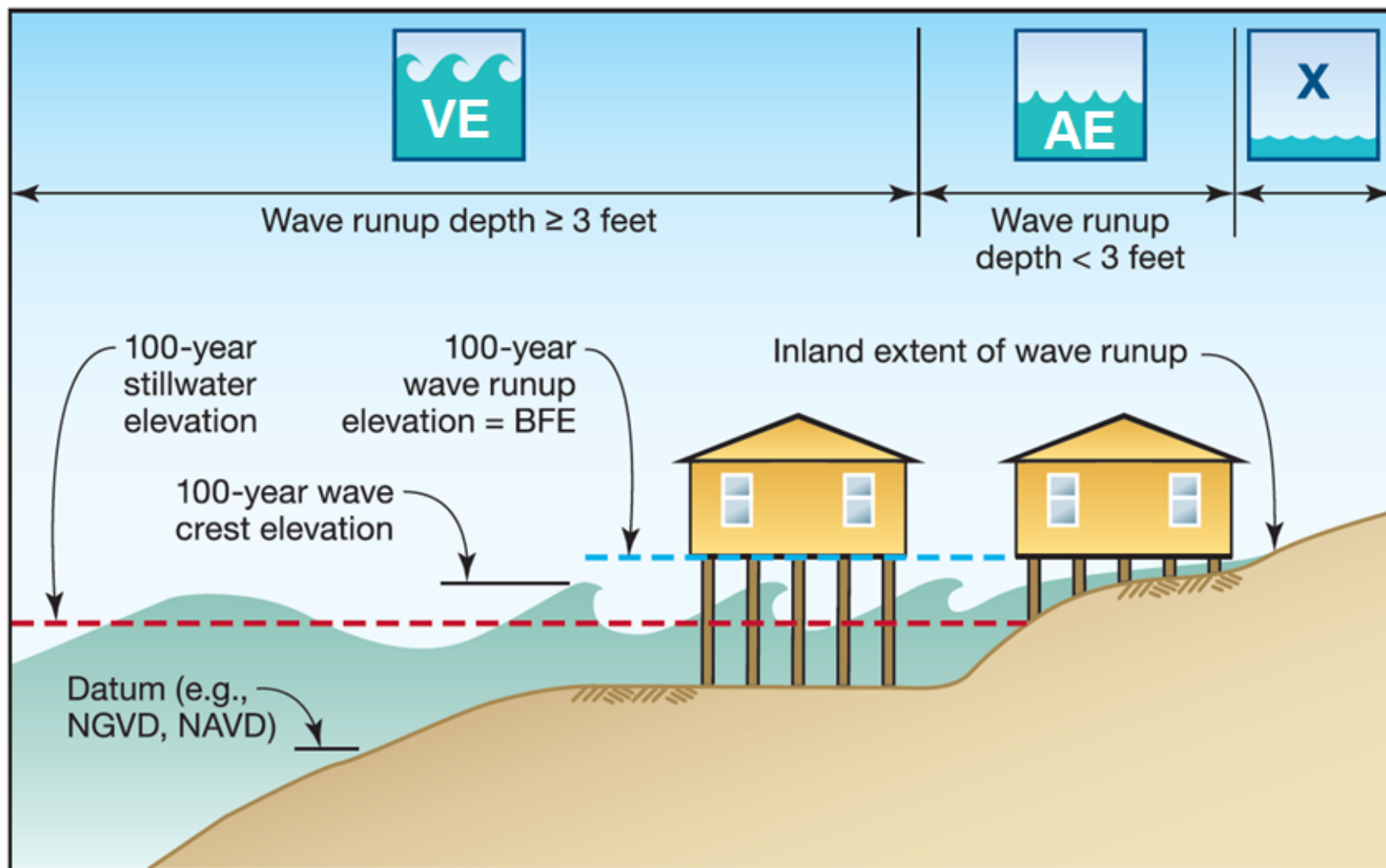
Measuring Coastal Base Flood Elevation



SWEL = Stillwater Elevation (storm surge level)

Total SWEL = Stillwater Elevation, inclusive of wave setup

Runup Mapping

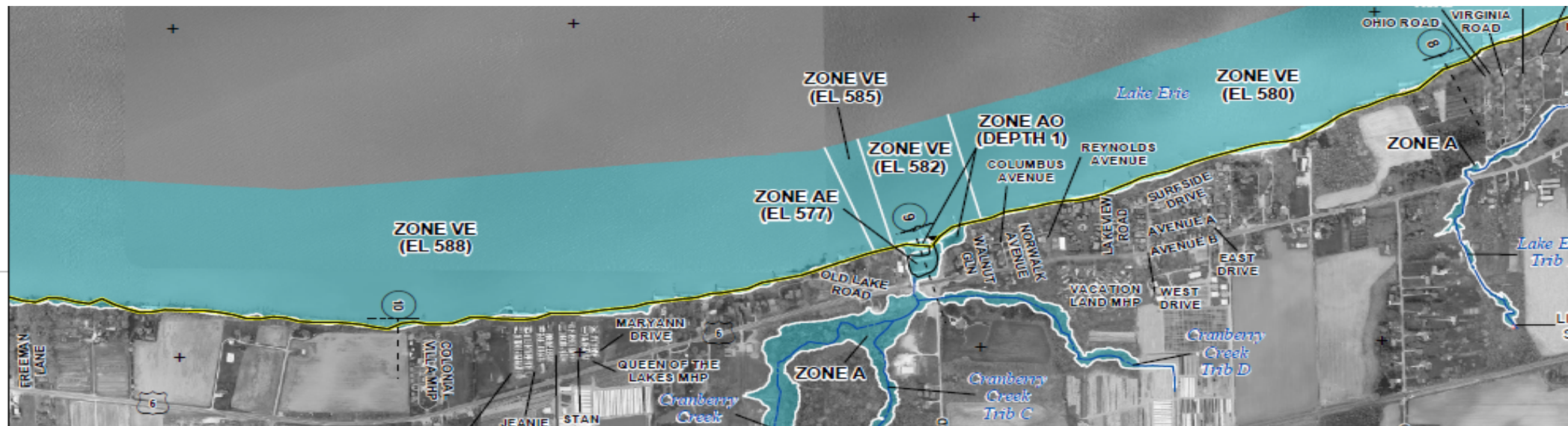


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Wave Runup Mapping

- ▶ 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



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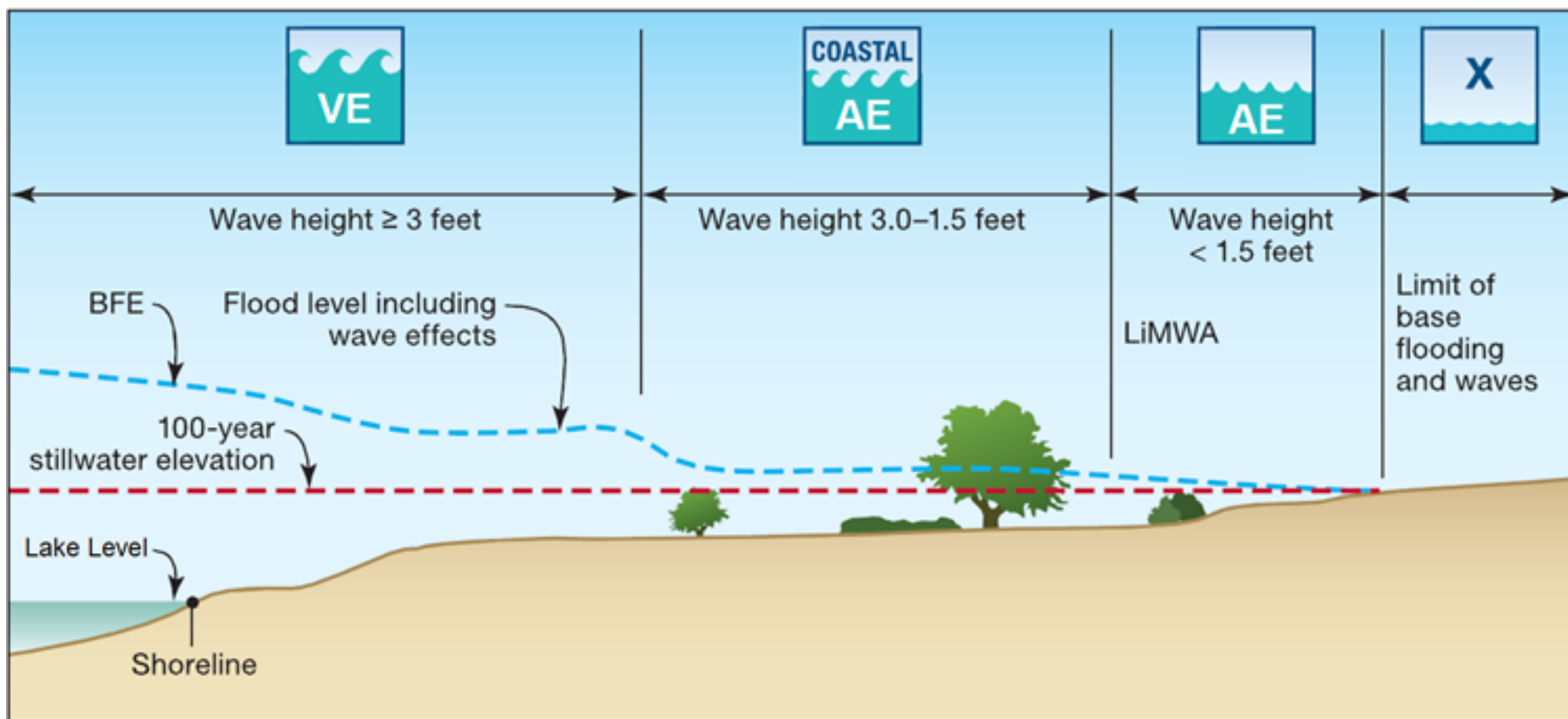
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Wave Overtopping: Zone A0



- ▶ 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



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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

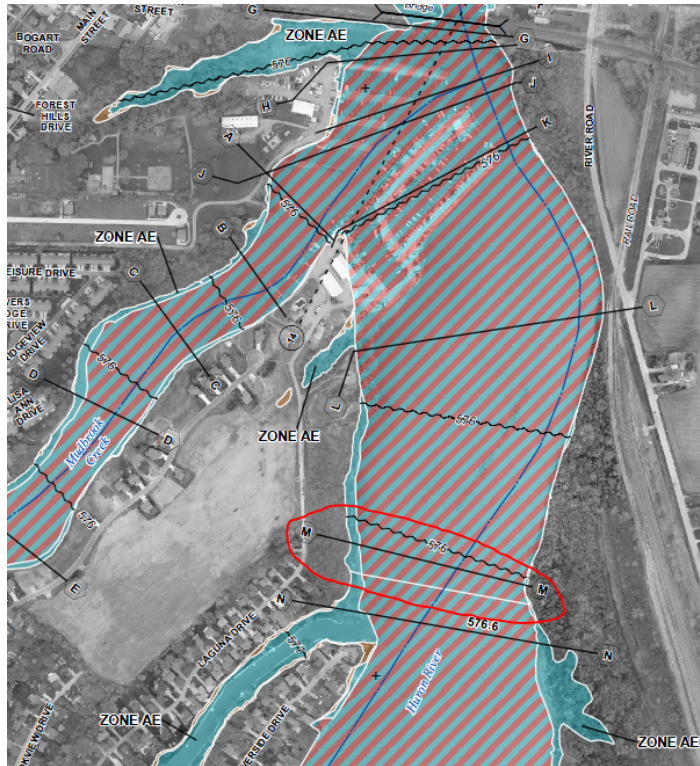
- Applied in areas subject to inundation by the 1-percent-annual-chance flood
- Wave heights < 3ft
- Subdivided into elevation zones & BFEs are assigned

▶ Zone AO

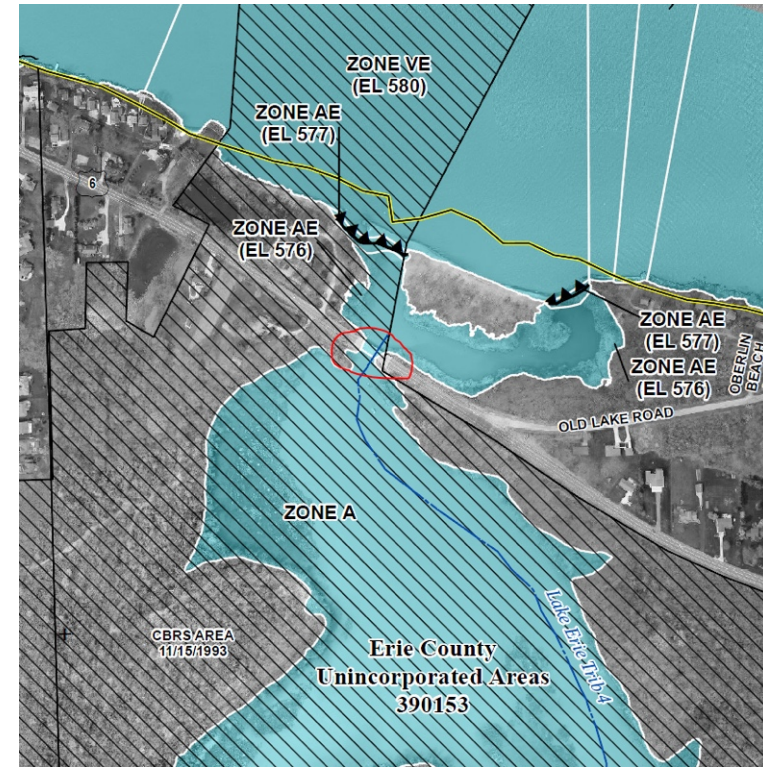
- Applied in areas of sheet-flow, ponding & shallow flooding

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 (Table 13 and Floodway Data table 24) and Profile



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Scope of Work: Riverine-Coastal SFHA Integration

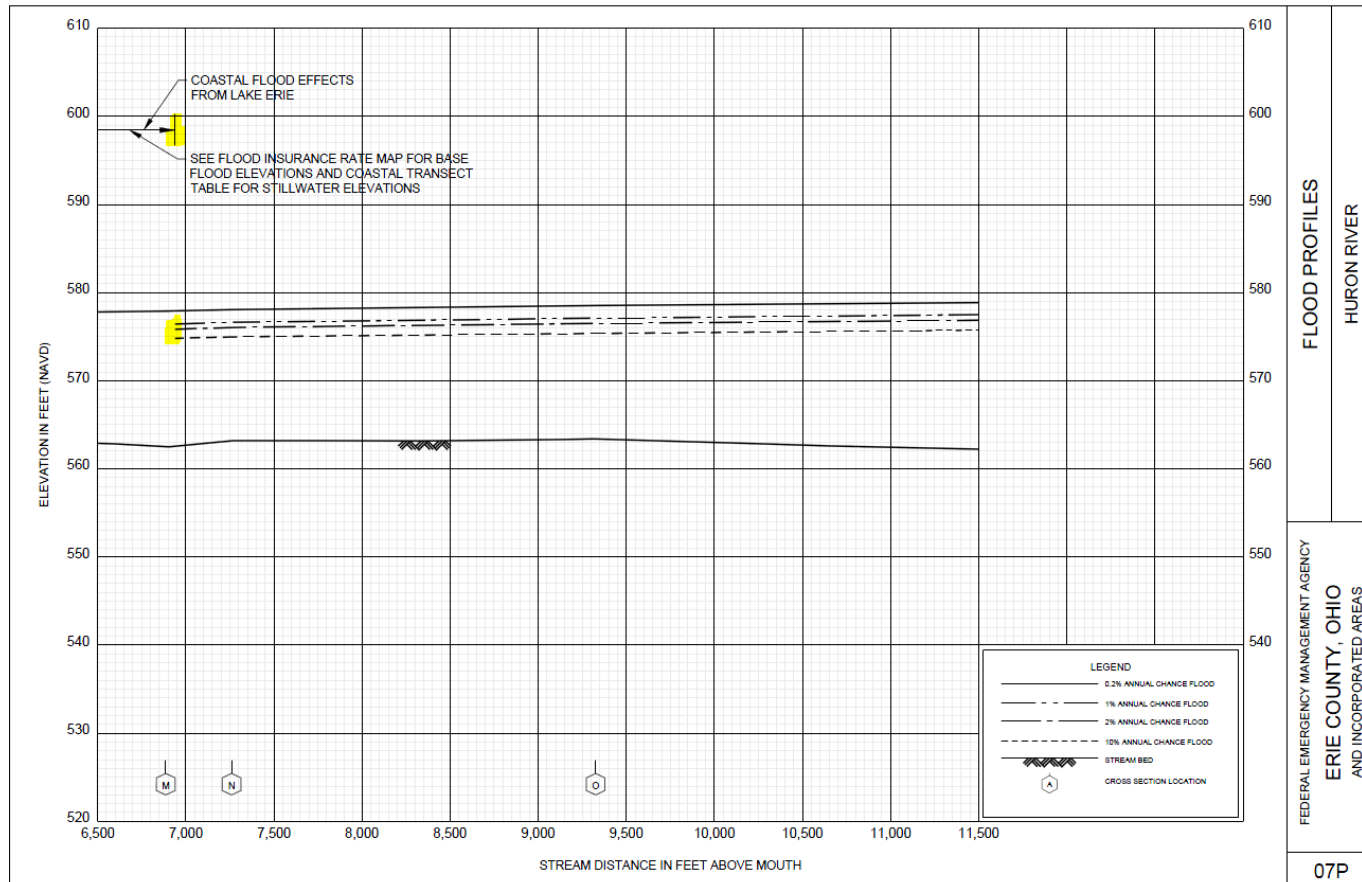


Table 13: Summary of Hydrologic and Hydraulic Analyses (continued)

Flooding Source	Study Limits Downstream Limit	Study Limits Upstream Limit	Hydrologic Model or Method Used	Hydraulic Model or Method Used	Date Analyses Completed	Flood Zone on FIRM	Special Considerations
Huron River Downstream	Mouth at Lake Erie	Huron City Limits	FREQFLO computer program for log-Pearson Type III	HEC-2	1977	AE w/ Floodway	2017 Redelineation from confluence with Lake Erie to approx. 7,200 FT upstream. (FEMA 2016)



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Scope of Work: Riverine-Coastal SFHA Integration

- **Detailed Zone AE***

- Boos Ditch
- Cold Creek Main Branch
- Hahn Creek
- Huron River
- Mills Creek
- Mudbrook Creek
- Pipe Creek
- Plum Brook
- Sawmill Creek
- Winkler Creek

- **Approximate Zone A***

- Chappel Creek
- Chaska Beach Cove
- Cranberry Creek & Tributary D
- Darby Creek
- Lake Erie Tributary 1
- Lake Erie Tributary 2
- Lake Erie Tributary 3
- Lake Erie Tributary 4
- Lake Erie Tributary 5
- Lake Erie Tributary 6
- Lake Erie Tributary 7
- Sugar Creek

*Re-delineation extents found in FIS Table 13

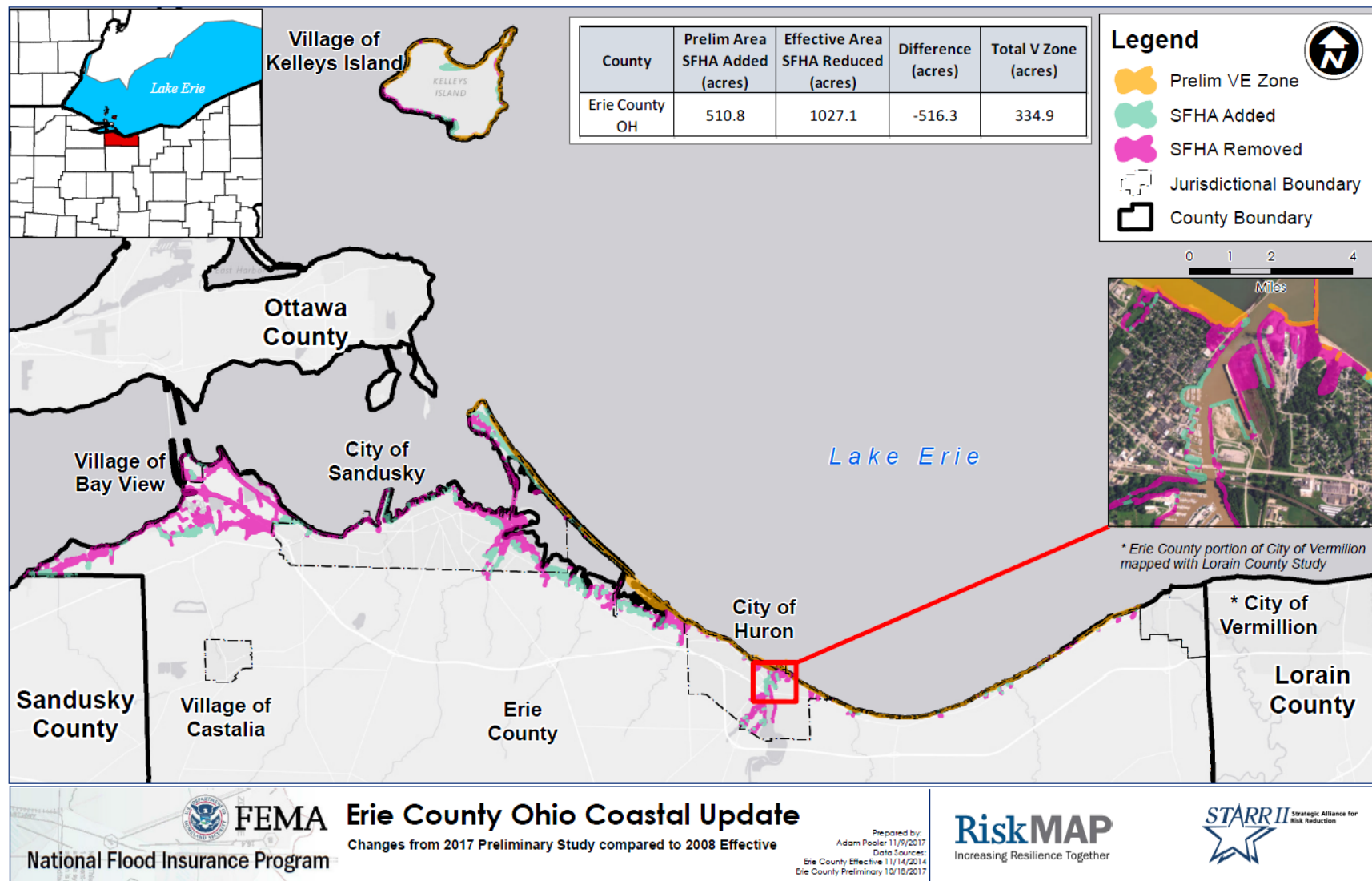
What are “Changes Since Last FIRM” in Erie County ?

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

In Erie 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) and Sandusky Bay Floodplain (Wave heights < 3ft)
- New Coastal AO Zones
 - Shallow Ponding Depths 1-3ft
- In Erie County, Riverine AE & A Zones were mapped
 - Coastal Stillwater Backwater Elevations were remapped, where applicable

Changes Since Last FIRM in Erie County



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

SOMA-1

PRELIMINARY SUMMARY OF MAP ACTIONS

Community: ERIE COUNTY

Community No: 390153

2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMR-F	98-05-1412A	05/03/1998	MARINER VILLAGE CONDOMINIUMS	3901530075C	39043C0111E 39043C0112F
LOMA	00-05-1078A	05/05/2000	PARCEL OF LAND	3901530050B	39043C0054E
LOMR-F	02-05-2288A	05/31/2002	MARINER VILLAGE CONDOMINIUMS, UNITS 706-711; 706-711 MARINER VILLAGE	3901530075C	39043C0111E
LOMR-F	04-05-A570A	10/04/2004	513 & 514 MARINER VILLAGE	3901530075C	39043C0111E
LOMR-F	05-05-5048A	09/01/2005	PARCEL 2, CRYSTAL ROCK ALLOTMENT SUBDIV 'E', LOTS 464-467	3901530045B	39043C0054E
LOMR-F	06-05-0963A	05/02/2006	4000 COLUMBUS AVENUE	3901530075C	39043C0091E
LOMA	06-05-BF40A	05/04/2006	ANNEXATION OF MARGARETTA TOWNSHIP, LOT 6 -- 7820 BARRETT ROAD (OH)	3901530050B	39043C0052E 39043C0054E
LOMA	08-05-0547A	11/18/2008	COMPASS ROSE CONDOMINIUM, BUILDINGS A & D THROUGH L -- WEST LAKE ROAD	39043C0145D	39043C0145F
LOMA	09-05-0734A	11/17/2008	Lot 7, Sandusky Portland Cement Co Subdivision - 114 Portland Ave	39043C0056D	39043C0056E
LOMA	09-05-1509A	01/12/2009	Lot 2, William and Dorothy Pooch No. 1 Subdivision - 301 E Bogart Road	39043C0065D	39043C0114F
LOMA	09-05-1360A	02/10/2009	SHAKER HIGHLANDS, LOTS 1, 9-15, 28-29 - 2602, 2604, 2606, 2700 2702, 2704-2707 & 2711 HIGHLAND DR	39043C0091D	39043C0091E
LOMA	09-05-0632A	03/05/2009	COUNTRY CLUB ACRES SUBDIV NO. 3, LOT 30 -- 3221 COUNTRY CLUB LANE	39043C0092D	39043C0092F
LOMA	09-05-3340A	04/20/2009	Lot 101, Hinde Dev #3 Subdivision - 2711 N Bayview Lane	39043C0091D	39043C0091E
LOMA	09-05-2229A	05/14/2009	3919/3921/3923/3925 HILLTOP DRIVE -- UNITS A-D, WALDEN WOODS CONDOMINIUM	39043C0092D	39043C0092F
LOMA	09-05-3010A	05/26/2009	SANDUSKY PORTLAND CEMENT CO., LOT 10 -- 204 PORTLAND AVENUE	39043C0052D 39043C0056D	39043C0052E 39043C0056E

10/16/2017

Page 2 of 10

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

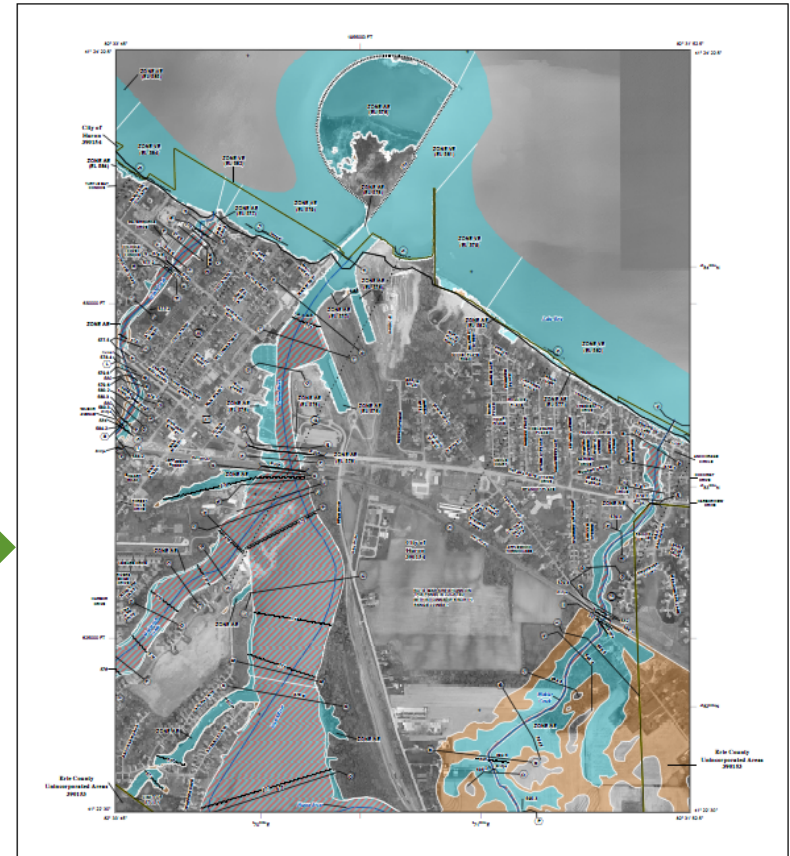
If you note a LOMC missing from the list, submit the omission with your comments



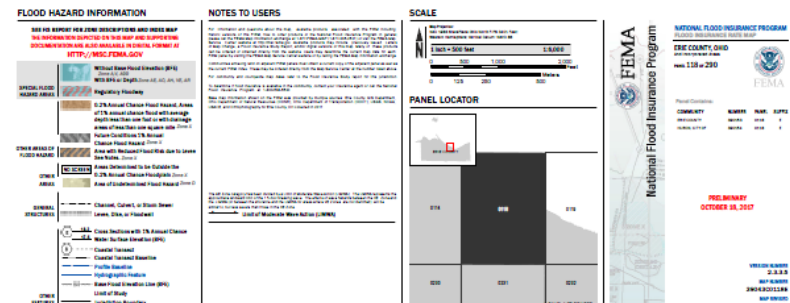
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NOTE: Format Changes to the FIRM



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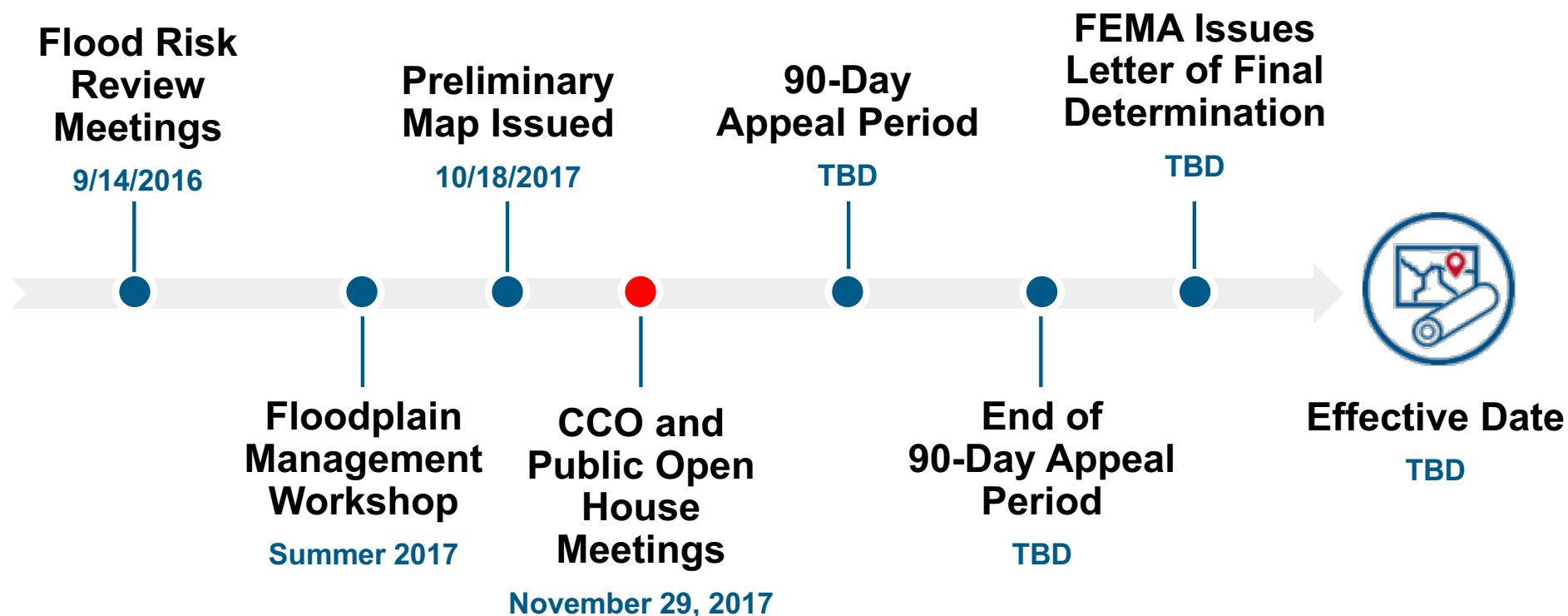
Next Steps in the Map Adoption Process



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Timeline for Erie County



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4-Step Pre-Adoption Process



**Inform the
Community**



**Gather Comments
and Additional Data**



Appeal Process



LFD Issued



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#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

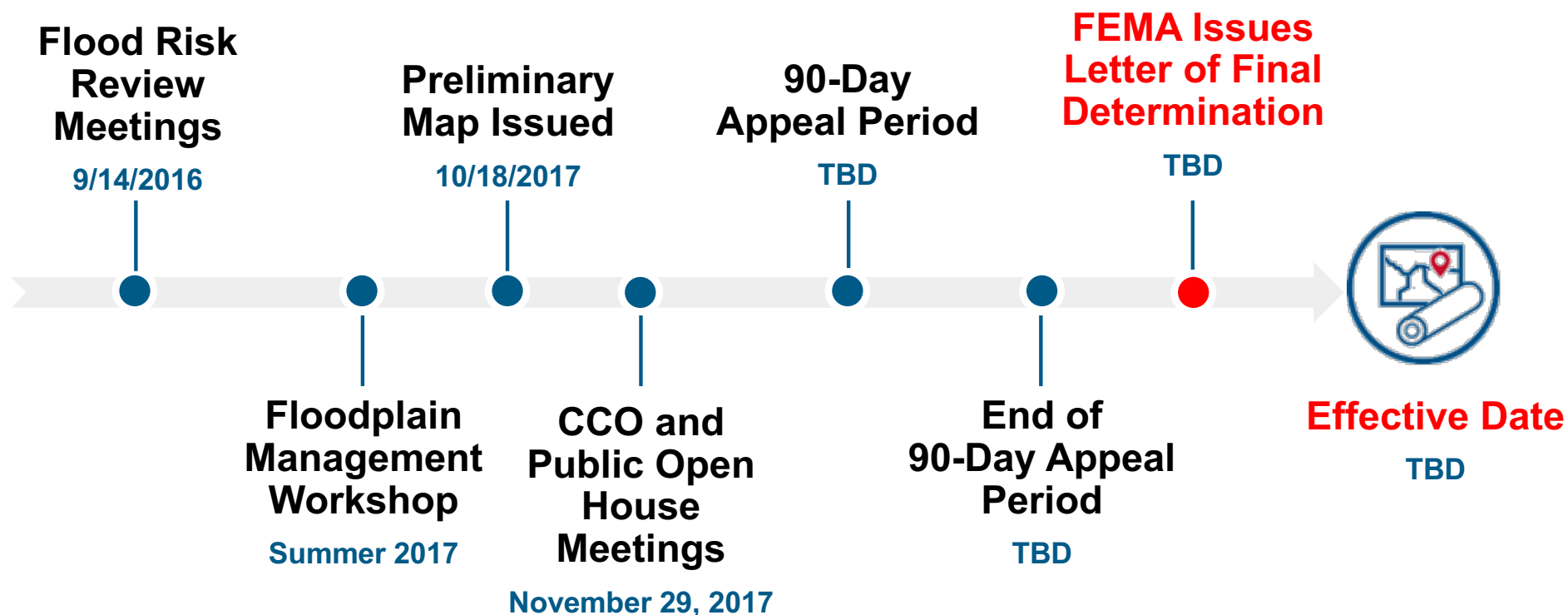
- ▶ **Appeal Period is 90 days**
- ▶ **Publication of Notice in Federal Register**
 - Notification to communities by letter including two local newspaper publications
- ▶ **All are welcome to submit information**
 - FEMA recommends directing comments through local community officials to provide a consolidated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



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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 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 Special Flood Hazard Area (SFHA).**
- ▶ **Many forms of disaster assistance are a type of federal loan or 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.**

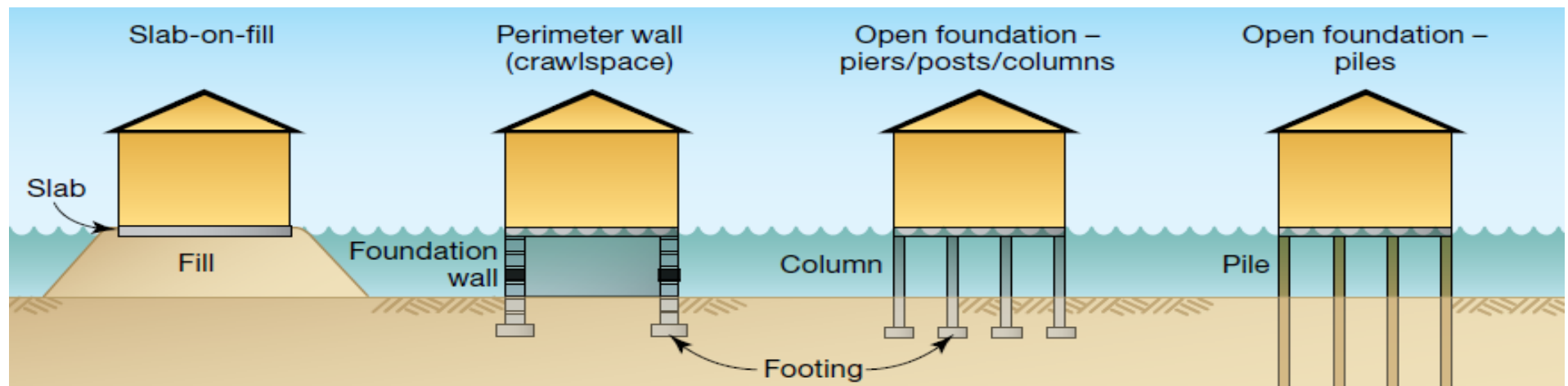
Differences in Development Requirements

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.

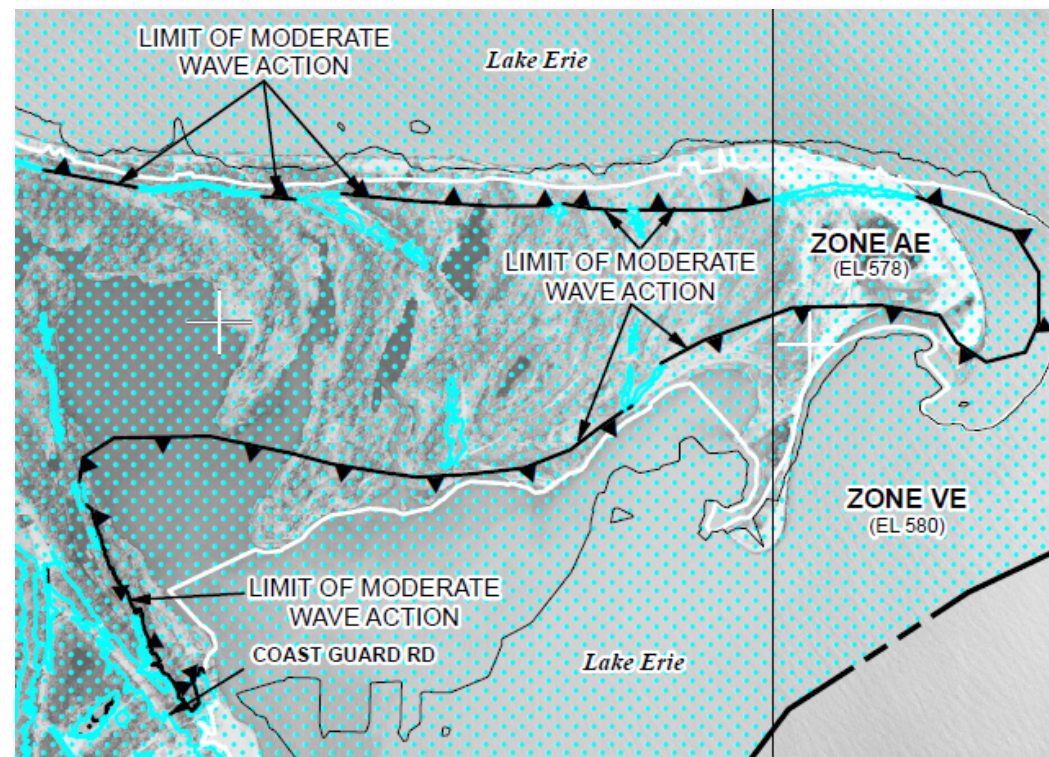
V Zones

- 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



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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.



Pre-FIRM

Post-FIRM



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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



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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

Question & Answer Session



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For Questions & Additional Information

Visit:

www.greatlakescoast.org

www.fema.gov/preliminaryfloodhazarddata

[FEMA ArcGIS Online Preliminary Map Viewer](#)

Contact:

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Next Step: Open House



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