

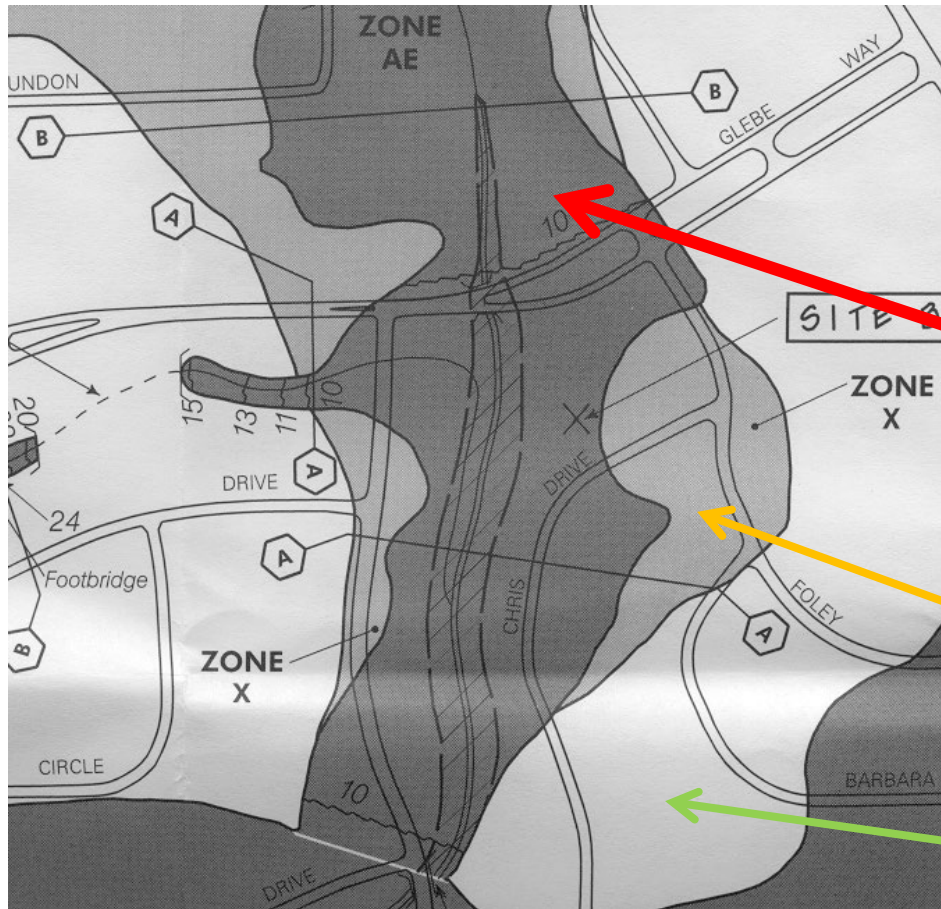
# Lake Shamineau Meeting – 5/27/2023

- What flood/elevations does FEMA map?
- Current shoreland district regulations
- FEMA Map Update – Morrison County Timelines
- Map Appeals versus Comments
- Flood Insurance Requirements

If time/interest:

- Showing House Not in High Risk Area (Letter of Map Amendment process)
- Floodplain Regulation Basics

# FEMA Map with Special Flood Hazard Area (SFHA)



National Standard of “100-yr flood” aka Base Flood Elevation (BFE) or 1% annual chance flood

High Flood Risk (must require flood insurance & regulate if below BFE)

- Zone A & AE (old)
- Zone A & AE (new)

Medium Flood Risk

- Zone B (old maps)
- Zone X (shaded)

Low Flood Risk

- Zone C (old maps)
- Zone X (unshaded)

# FLOOD FREQUENCY

<u>Flood Frequency</u>	<u>Annual Probability of Occurrence</u>
10-Year	10% *
50-Year	2% *
100-Year	1% *
500-Year	0.2% *

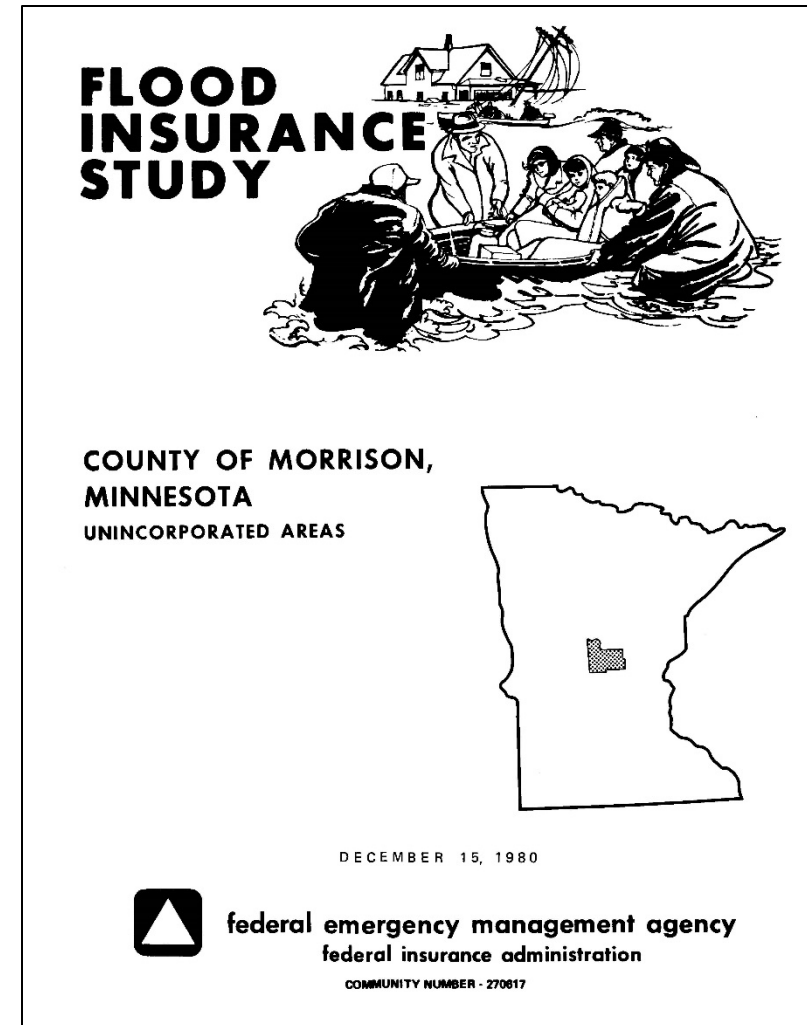
\* Chance of being equaled or exceeded  
in any given year.

# SYNONYMOUS TERMS

- One-Percent (1%) Chance Flood
- 100-Year Flood
- Base Flood Elevation, or BFE (FEMA)
- Regional Flood (MN DNR)
- Special Flood Hazard Area, or SFHA (FEMA)
- High Flood Risk Area

# Flood Insurance Study (FIS)

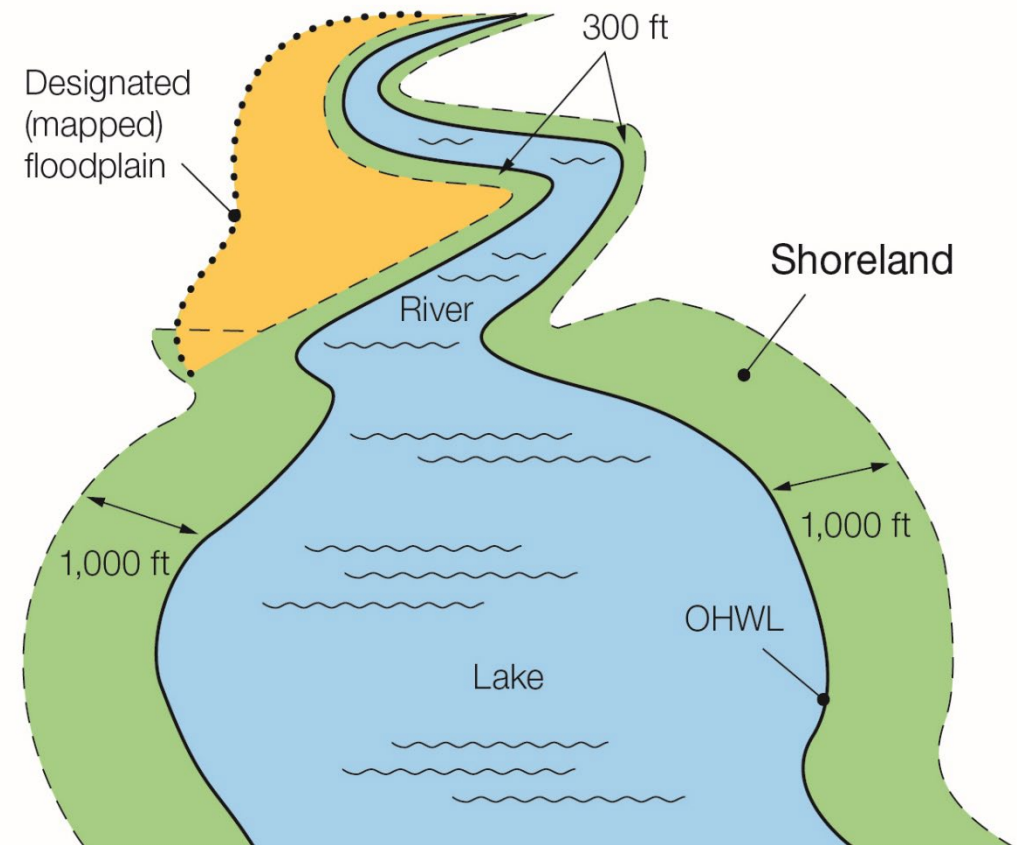
- Background, authority, scope
- Principal flood problems
- Existing / proposed flood control projects
- Engineering methods used
- Summary of flood discharges: 10, 50, 100 & 500 year



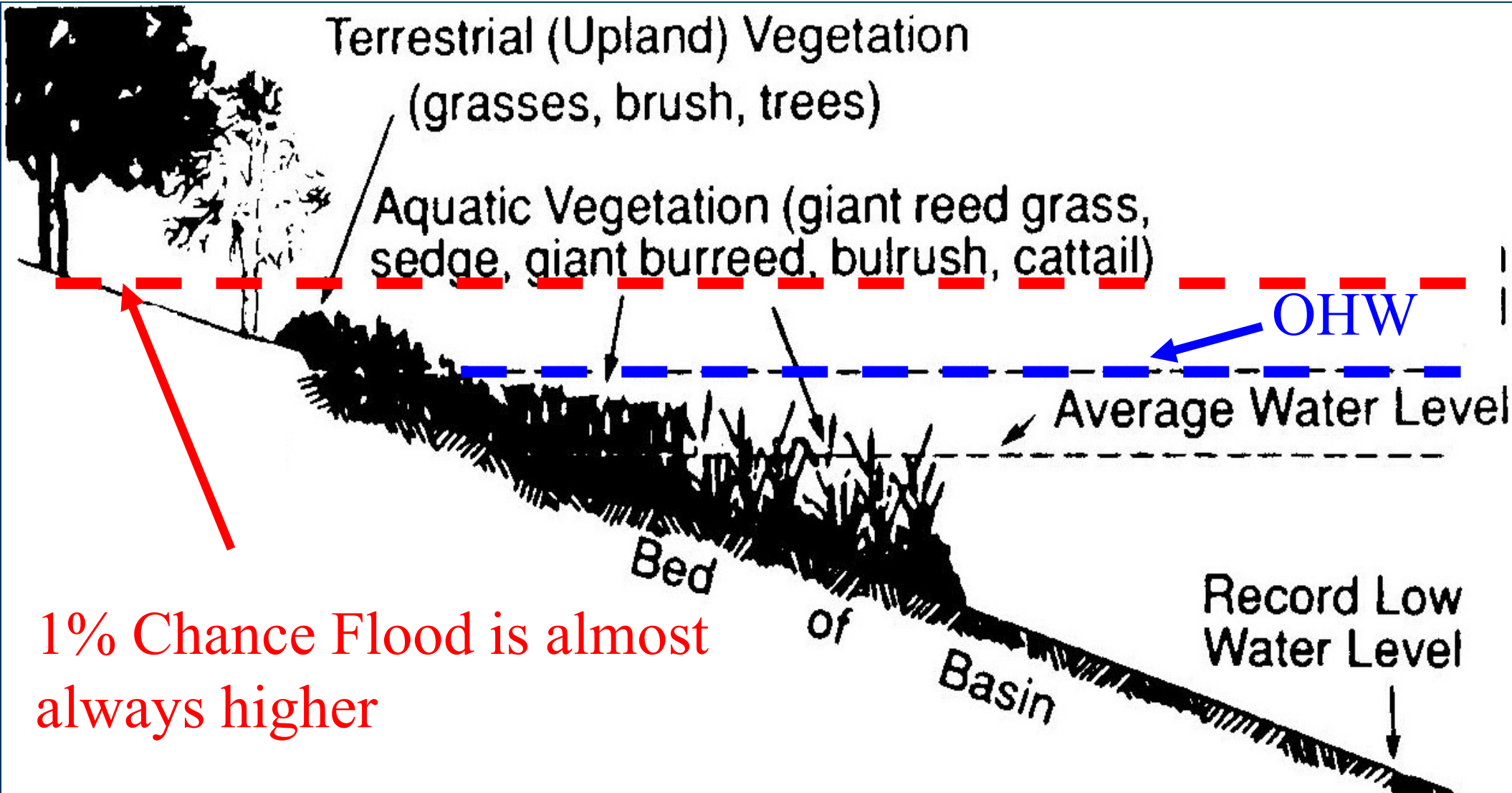
# Shoreland Management Regulations (Morrison regulations since 1970s)

- 1000 feet from OHWL for lakes
- 300 feet from OHWL for rivers/streams or floodplain boundary, whichever is greater

## Boundaries of District



# Ordinary High Water (OHW) Level



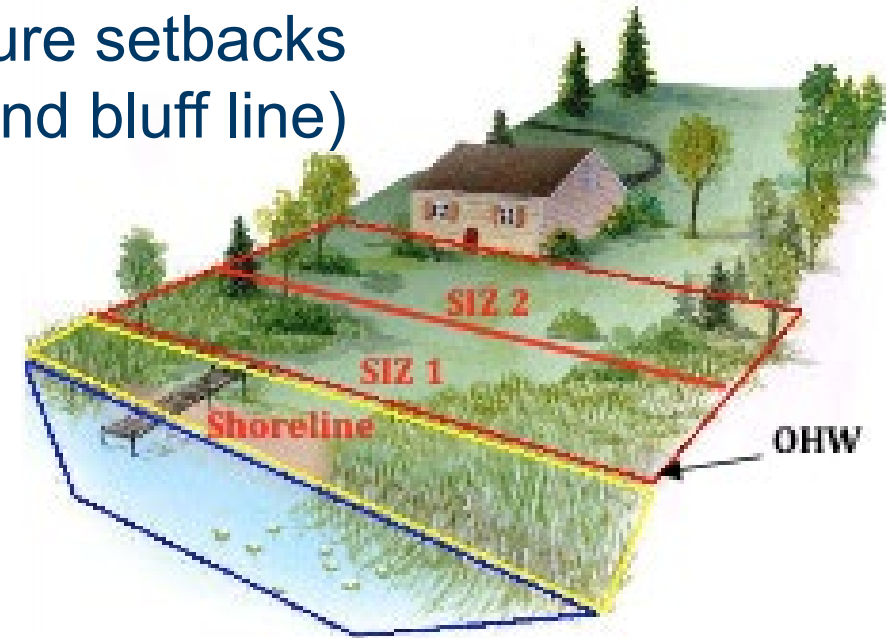


# Example Shoreland Regulatory Requirements



Lot size

Structure setbacks  
(OHWL and bluff line)



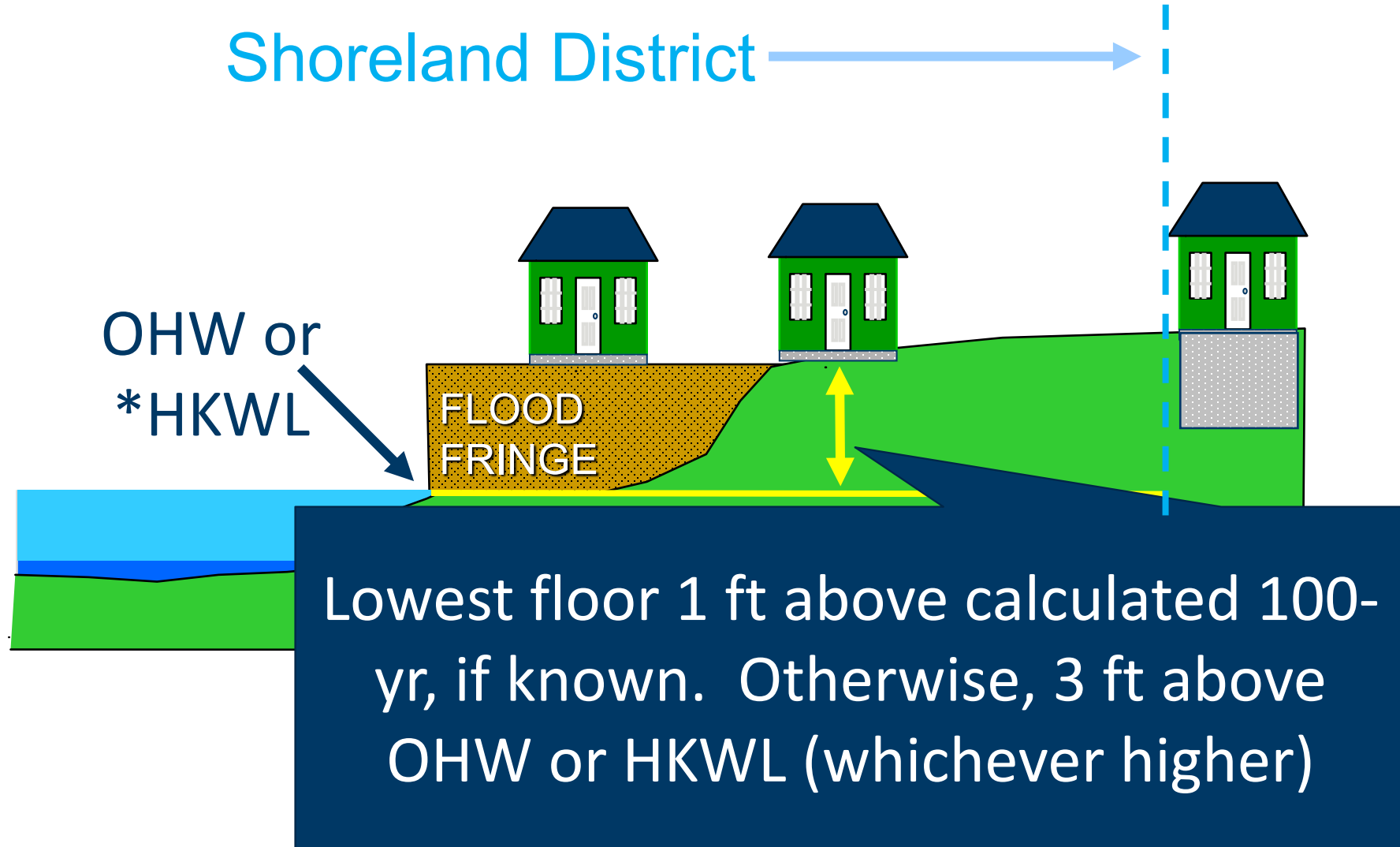
Vegetation  
management,  
Aesthetics /  
screening



# Comparison to Shoreland Requirements

(still minimum elevation if in Shoreland District!!)

\*HKWL –  
Highest  
Known Water  
Level

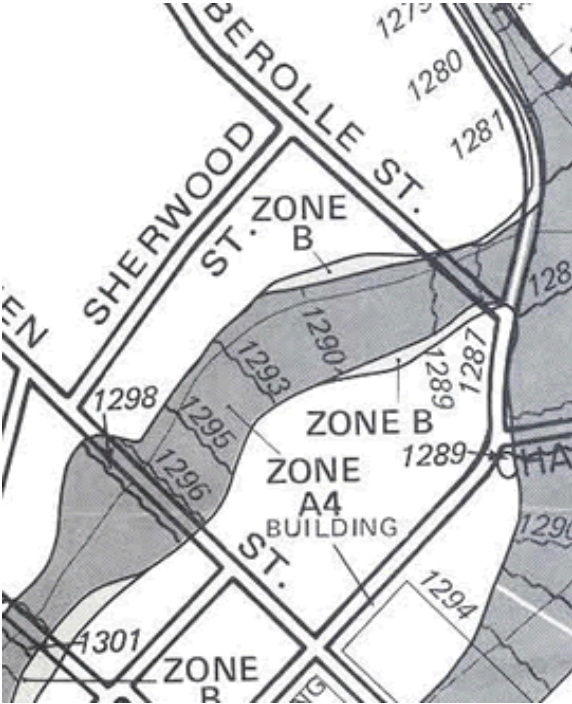


# What are the Elevations on Shamineau?

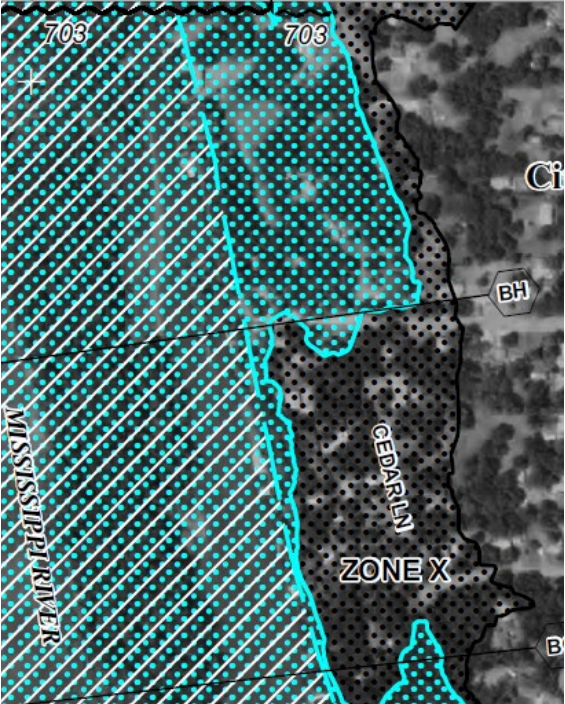
- OHW = 1,275.1' NGVD29
- Highest Recorded = 1,278.08' NGVD29 on 5/25/2020
- **Lowest floor based on Shoreland regulations** = 1,278.08 + 3 feet = 1,281.1' NGVD29 = **1,281.7' NAVD88**\* \*Conversion from NGVD29 to NAVD88 (used on new maps) = +0.557 ft
- FEMA Base Flood Elevation on prelims 1,280.16' NAVD88
- **Lowest floor using floodplain elevation** = 1,280.16' + 1.0 = **1,281.2' NAVD88**

# Flood Risk Assessment Methods Evolving . . .

Yesterday



Today

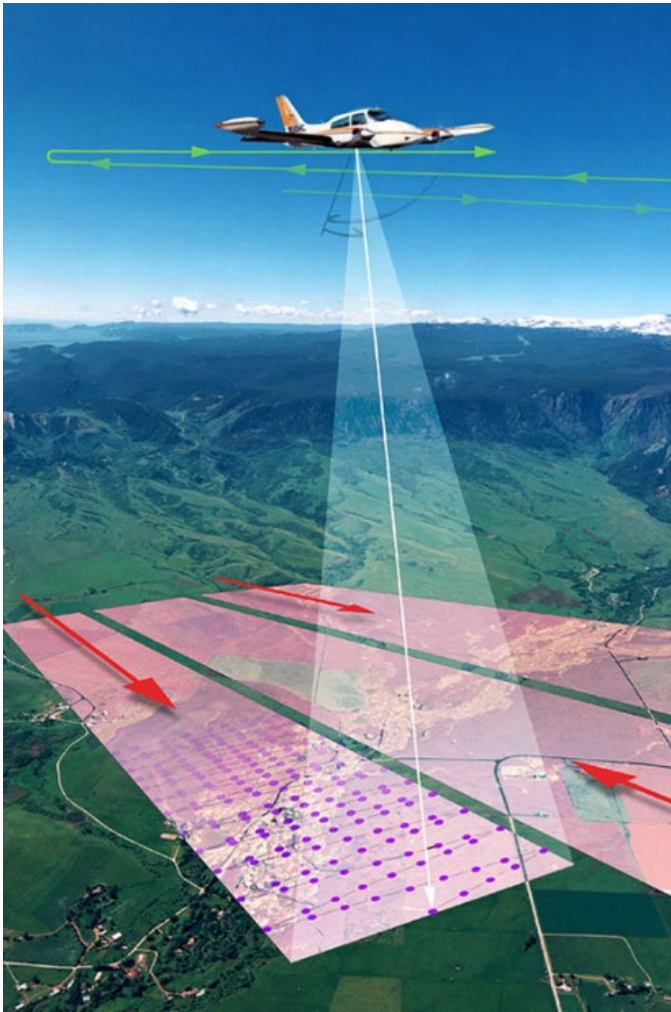


Tomorrow





# We have LiDAR statewide now!



# DNR Floodplain Web Site



## Floodplain Management

Main page

Floodplain Regulations

Maps and Technical Resources

Flood Insurance

Preparation, Response and Recovery

Training and Education

Flood Hazard Mitigation

Floodplain Management History

## Find Flood Maps

### "Is My House in the Floodplain?" Video

Are you looking for the official FEMA floodplain map in your area? Has a lender told you flood insurance is mandatory? View the "[Is My House in the Floodplain?](#)" video. Learn how to:

- Check what type of FEMA floodplain map is available in your county (in Minnesota).
- Find and print the FEMA Flood Insurance Rate Map (FIRM) for your area.

### What Flood Maps are Available in Each County?

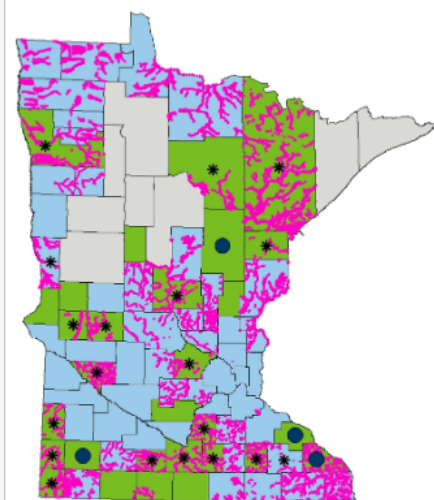
Find what flood maps and elevation information is available for your community using the map below.

**DFIRM and Paper Map Counties:** See more details below.

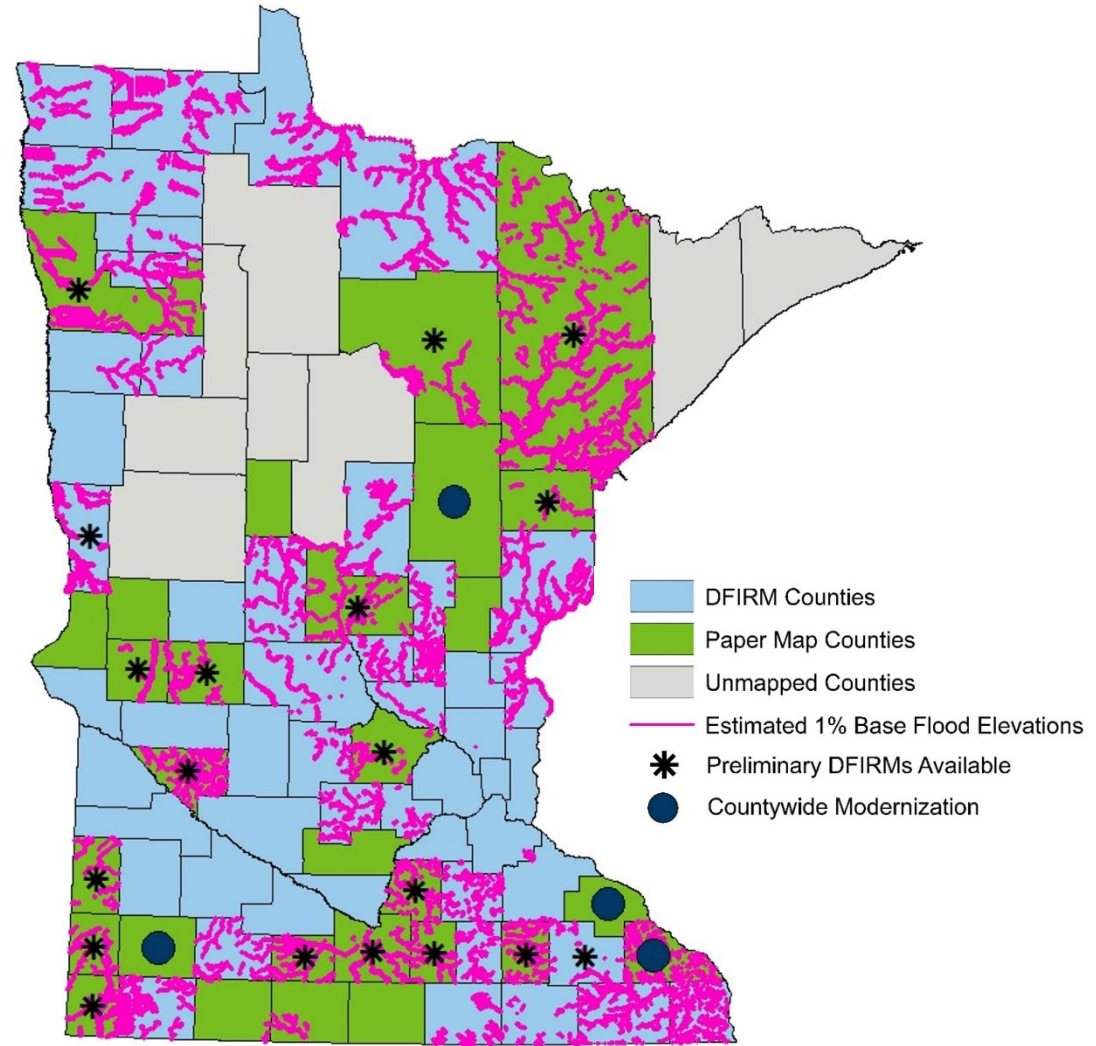
#### Other Map Legend notes:

- **Estimated 1% Base Flood Elevations:** These Estimated 1% Base Flood Elevations can be viewed on the DNR's [Lake & Flood Elevations Online \(LFEO\) viewer](#)
- **Preliminary DFIRMs Available:** See options to view preliminary DFIRMs in DFIRM or Paper counties resources below.
- **Countywide Modernization:** DNR and FEMA are currently working on getting better data and mapping. See latest on [FEMA map updates](#).

Click to enlarge



DFIRM Counties  
Paper Map Counties



DFIRM Counties  
Paper Map Counties  
Unmapped Counties  
Estimated 1% Base Flood Elevations  
\* Preliminary DFIRMs Available  
● Countywide Modernization



# County Level Floodplain Map Viewers (quick link – [mndnr.gov/countyFPdata](http://mndnr.gov/countyFPdata))



[Home](#) > [Ecological and Water Resources](#) > [Water Management](#) > [Floodplain](#) >

## Floodplain Management

[Main page](#)

[Floodplain Regulations](#)

[Maps and Technical  
Resources](#)

[Flood Insurance](#)

[Preparation, Response  
and Recovery](#)

[Training and Education](#)

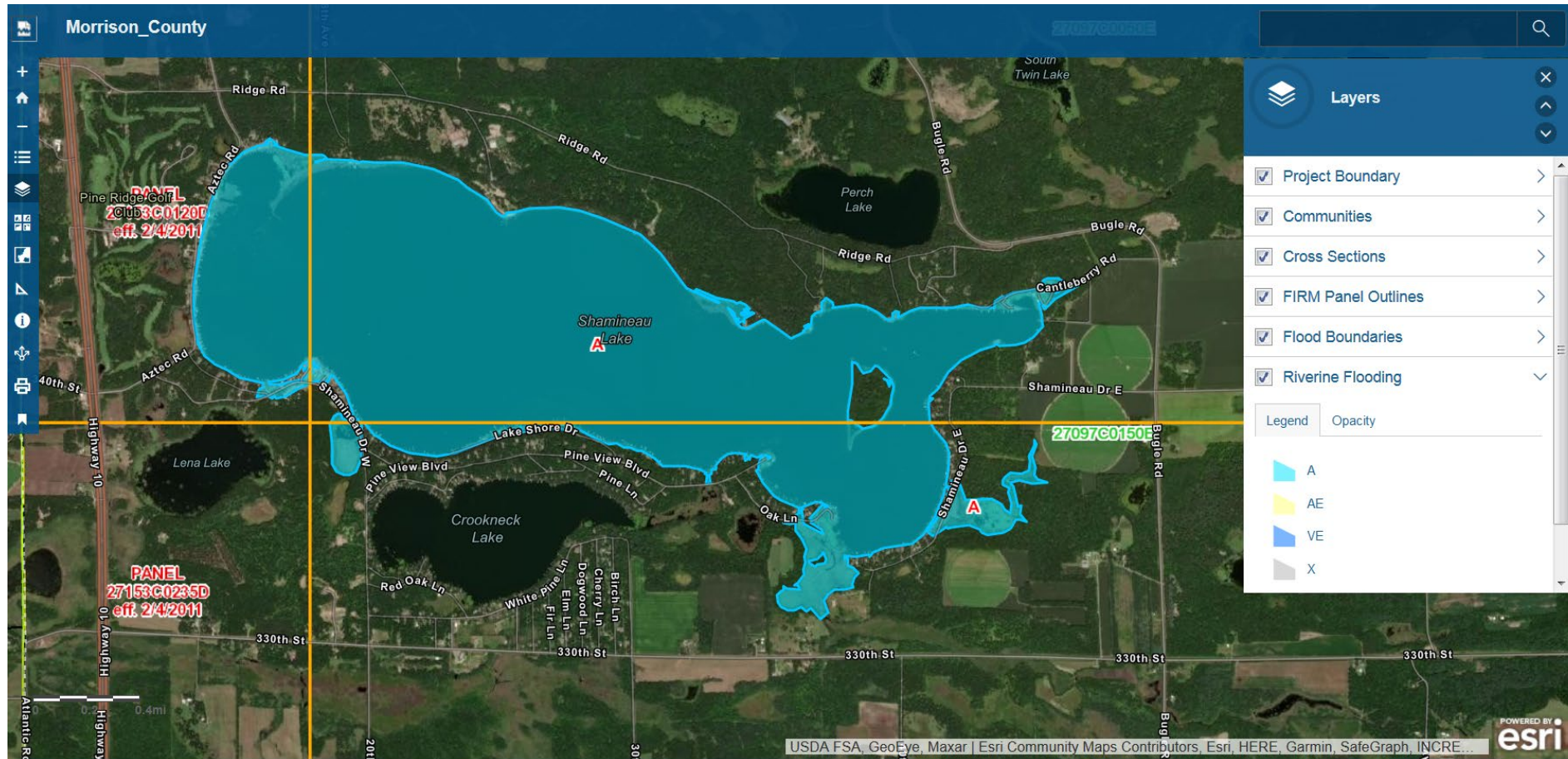
[Flood Hazard Mitigation](#)

## County Data and Map Viewers

The following counties have data and/or viewers available, in addition to the official FEMA maps on [FEMA's Maps Service Center](#)

- Aitkin County
  - [Aitkin Work Map Viewer](#)
- Anoka County
  - [County Supported Map Viewer](#) - includes features to help with Letter of Map Amendment applications
- Blue Earth County
  - [Preliminary New FEMA Map](#) (as of Sept. 12, 2018)
- Cook County
  - [Coastal \(Lake Superior\) Work Map](#)
- Cottonwood County
  - [Cottonwood Work Map Viewer](#)
  - [Cottonwood Changes Since Last FIRM Viewer](#)
- Fillmore County
  - [Pending New FEMA Maps](#) (effective August 15, 2019)
- Hennepin County

# Morrison County Draft Map Viewer



## [Morrison Map Link](http://fema.maps.arcgis.com/apps/View/index.html?appid=101a9c5b179349ee989a137f3f880aa8&extent=-95.4622,45.6228,-92.9531,46.4039) -

<http://fema.maps.arcgis.com/apps/View/index.html?appid=101a9c5b179349ee989a137f3f880aa8&extent=-95.4622,45.6228,-92.9531,46.4039>

# Timeline for Morrison Map Update

- Preliminary new Morrison Countywide maps – Nov. 3, 2022
- Community Consultation Outreach (CCO); Local official meeting – Jan. 19, 2023
- Public Open House – Jan. 19, 2023
- 90-day appeal process – June 4 – Sept. 2, 2023
- Letter of Final Determination (LFD) – April 2024
- New Map FAQs training for local officials, etc. - ~3 months after LFD
- Maps Effective (6 months after LFD) – October 2024

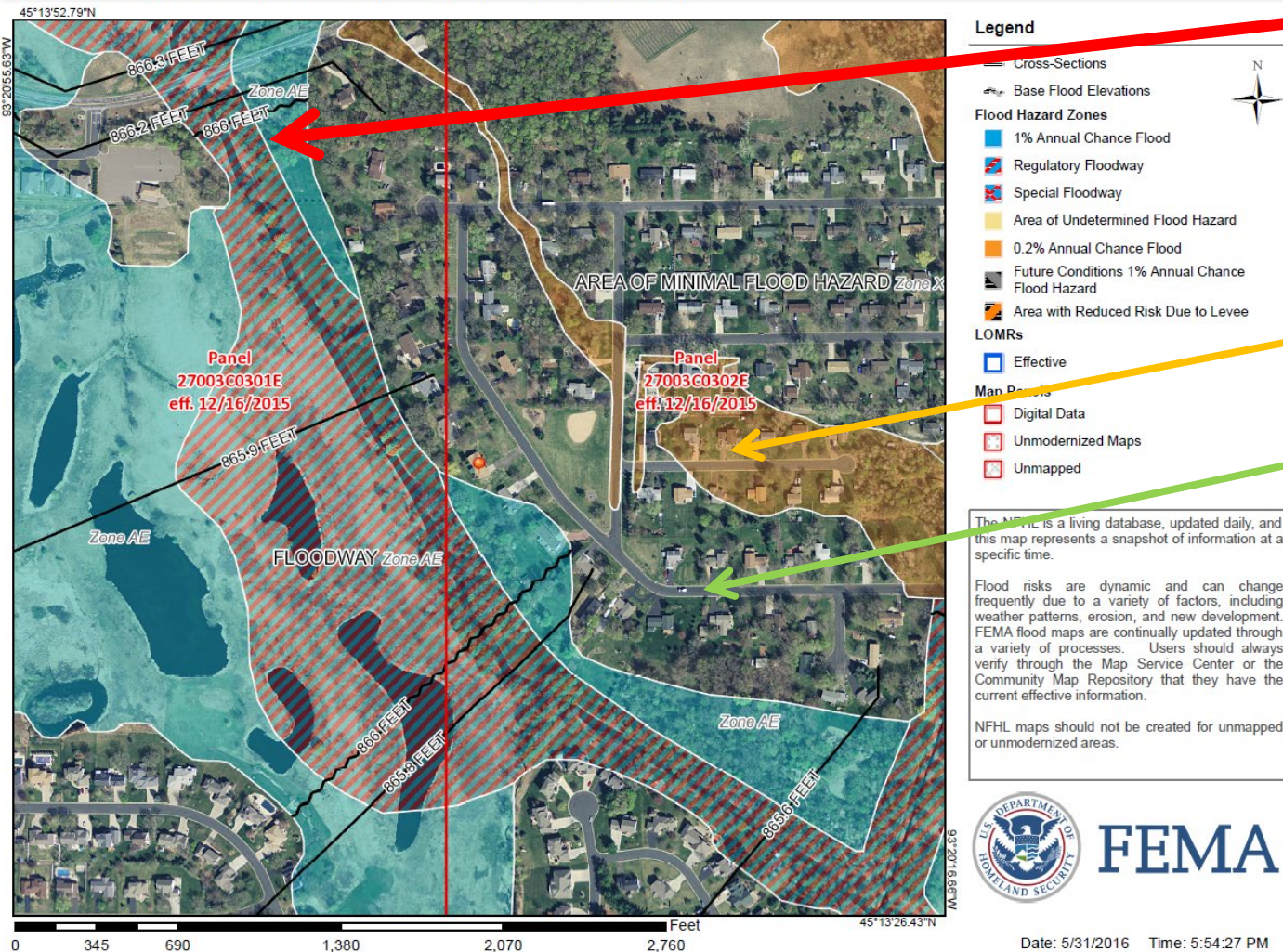
# Post Preliminary Map Updates

- To be considered an **appeal**, a submittal must:
  - Be received during the statutory 90-day appeal period
  - Relate to new or modified BFEs, base flood depths, SFHA boundaries, SFHA zone designations, or floodways
  - Be based on data that show the new or modified BFEs, base flood depths, SFHA boundaries, SFHA zone designations, or floodways to be scientifically or technically incorrect
  - Be accompanied by all data that FEMA needs to revise the preliminary version of the FIS report and FIRMs
  - Be certified by a Registered Professional Engineer or Licensed Land Surveyor, as appropriate
  
- The term **comment** is used for any submittal that does not meet the requirements for an appeal as outlined above



# When is Flood Insurance Mandatory?

National Flood Hazard Layer Official Map



High Flood Risk (must require flood insurance and regulate)

Medium Flood Risk

Low Flood Risk

The NFHL is a living database, updated daily, and this map represents a snapshot of information at a specific time.

Flood risks are dynamic and can change frequently due to a variety of factors, including weather patterns, erosion, and new development. FEMA flood maps are continually updated through a variety of processes. Users should always verify through the Map Service Center or the Community Map Repository that they have the current effective information.

NFHL maps should not be created for unmapped or unmodernized areas.





# Thank You!

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