



Risk MAP and Discovery

**FEMA Region V, Kickapoo River Watershed
March 26, 2018**



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Meeting Agenda

- ▶ **Welcome!**
- ▶ **Brief Overview of Risk MAP**
- ▶ **Introduction to Risk MAP Products**
- ▶ **Overview of Mitigation Planning**
- ▶ **Looking Forward**
- ▶ **Breakout Session – Interactive Discussions**

Discovery Project Team

- **FEMA Region V, Risk Analysis Branch**
- **Wisconsin Department of Natural Resources**
- **Wisconsin Emergency Management**



Why Are We Here?

- ▶ **To gather a complete, current picture of your community's flood hazards and the associated risk will help you better:**
 - Plan for the risk,
 - Take action to protect your communities, and
 - Communicate the risk to your citizens.
- ▶ **Flood risk changes over time.**
- ▶ **The Kickapoo River Watershed was prioritized because of flooding frequency and the watershed's history of mitigation successes.**

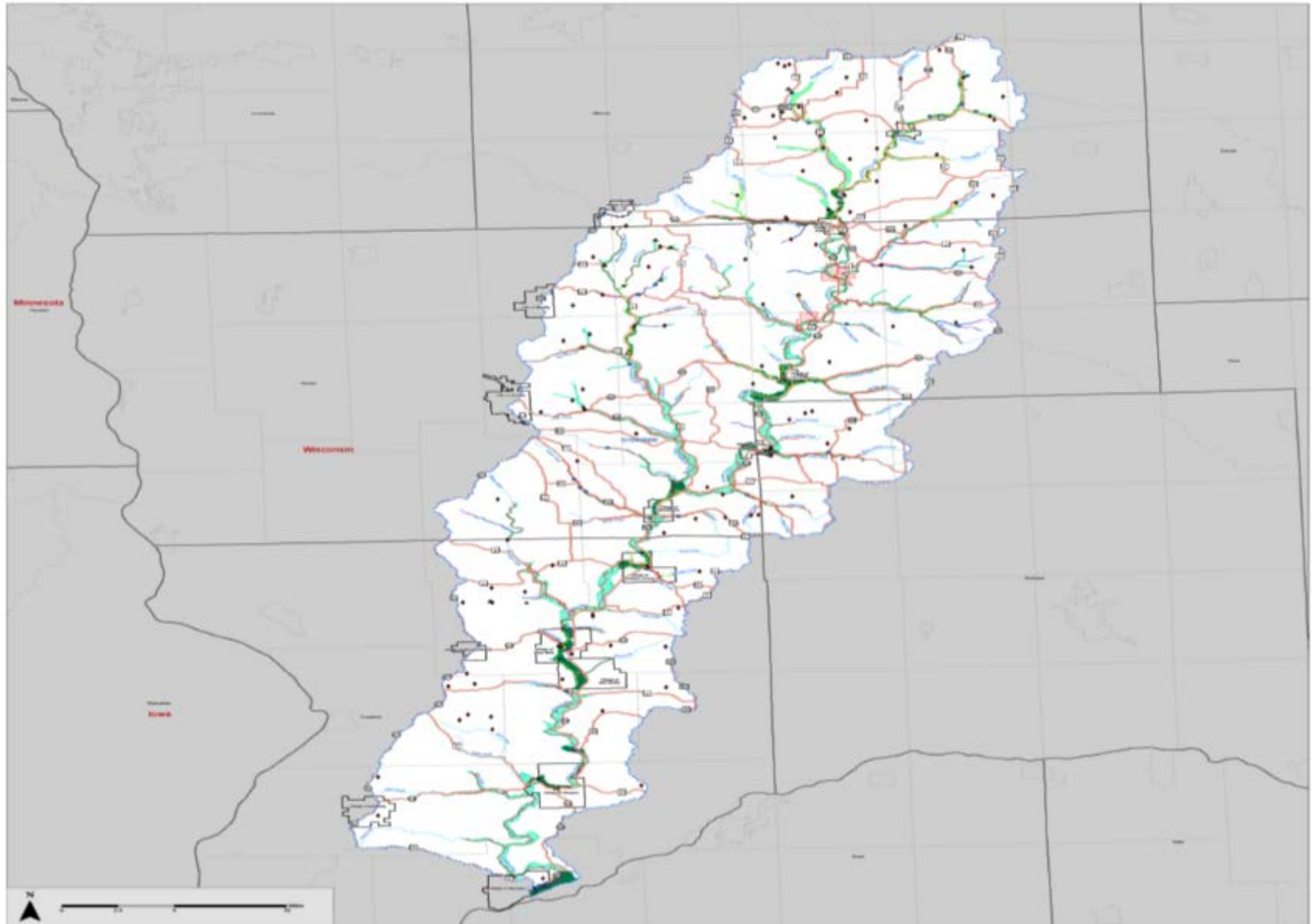


Overview of Risk MAP & Discovery



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The Kickapoo River Watershed



What is the purpose of Risk MAP?

Through collaboration with Tribal, State, and Local entities, Risk MAP will deliver **quality data** that increases **public awareness** and leads to **action that reduces risk** to life and property



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Risk MAP Overview

- ▶ **Through Risk MAP, FEMA works with communities to develop flood risk products and flood hazard maps that are:**
 - Based on the best available data from the community and that use the latest technologies
 - Conducted on a watershed level
 - Strengthened by partnerships
- ▶ **You can use Risk MAP tools and data to:**
 - Create or improve your Hazard Mitigation Plans
 - Make informed decisions about development, ordinances, and flood mitigation projects
 - Communicate with citizens about flood risk

FEMA Region V Risk MAP Process

YEAR
1-2

- 1 DISCOVERY**
Gather local risk knowledge and identify future work



- 2 FLOOD RISK REVIEW MEETING**
Technical review of draft maps



YEAR
3-4

- 3 CCO MEETING**
Communicate risk and regulatory changes



- 4 PUBLIC MEETING**
Risk awareness open house



YEAR
5+

- 5 RESILIENCE MEETING & ACHIEVING RESULTS**

Resilience Meeting: Identify and review resilience strategies, and steps towards implementation

Achieving Resilience: Mitigate risk and increase local resilience to disasters



What is Discovery?

- ▶ **Discovery is the process of data mining, collection, and analysis with the goal of initiating a flood risk or mitigation project and risk discussions with the watershed**
- ▶ **When**
 - After an area/watershed has been prioritized
 - Before a Risk MAP project is scoped or funded
- ▶ **Required for new and updated...**
 - Flood studies
 - Flood risk assessments
 - Mitigation planning technical assistance projects
- ▶ **Why**
 - Increases visibility of flood risk information, education, and involvement
 - Helps inform whether a Risk MAP project will occur in the watershed

What is Discovery? (cont'd.)

- ▶ Discovery is the foundation for Risk MAP.
- ▶ The better the information we receive, the more accurate the tools and products we can produce.
- ▶ First, we want to learn where your flood hazards are, what risk they pose, and how your community addresses that risk.
- ▶ Then, we want to be a long-term partner to help you communicate and mitigate those hazards.

Discovery Goals

Review flood hazards and risks

Understand local mitigation activities and capabilities and hazard risk assessments

Collect information about flooding history, development plans, and floodplain management



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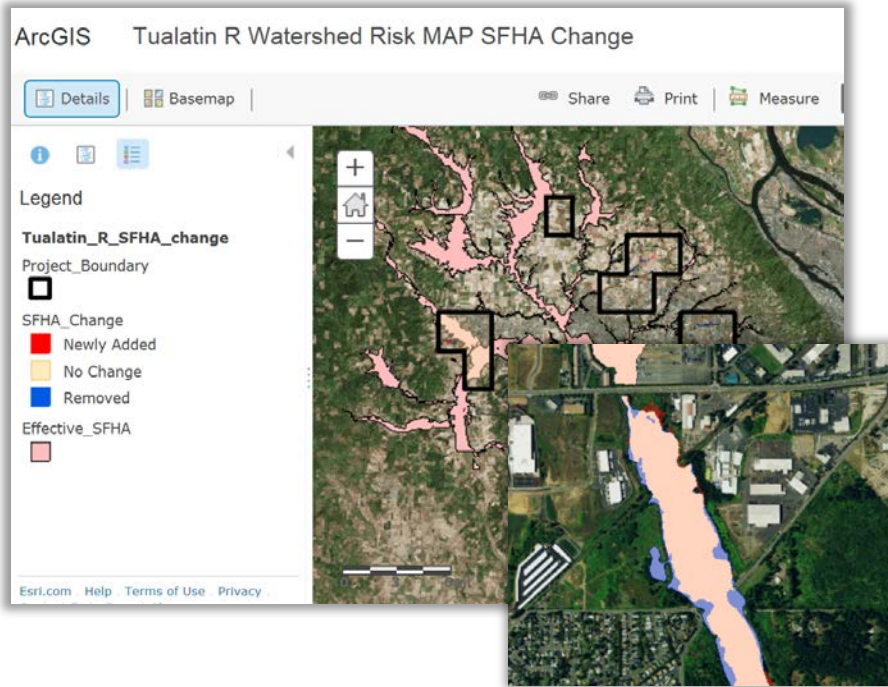


Regulatory vs. Non-Regulatory products

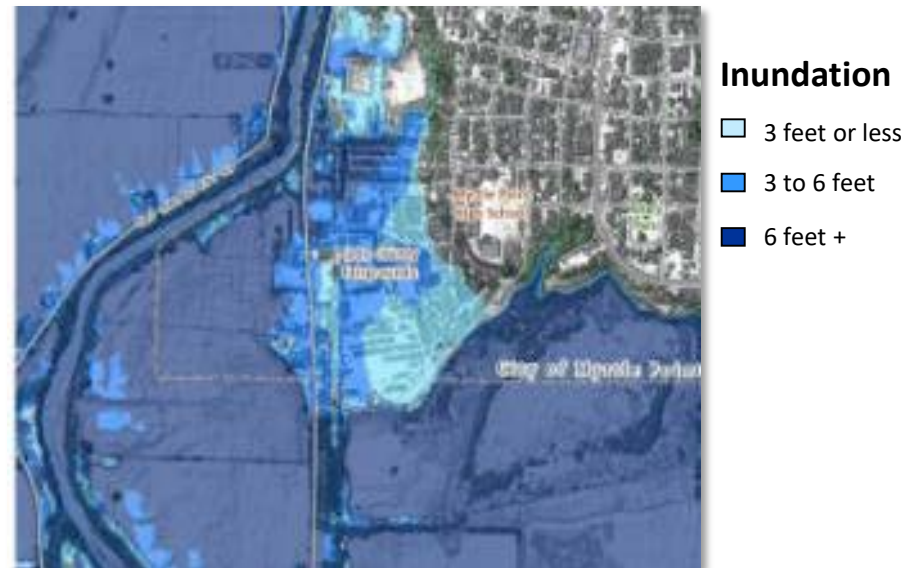


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Risk MAP Products



Changes Since Last FIRM:
Shows how the Special Flood Hazard Area has changed with the new map

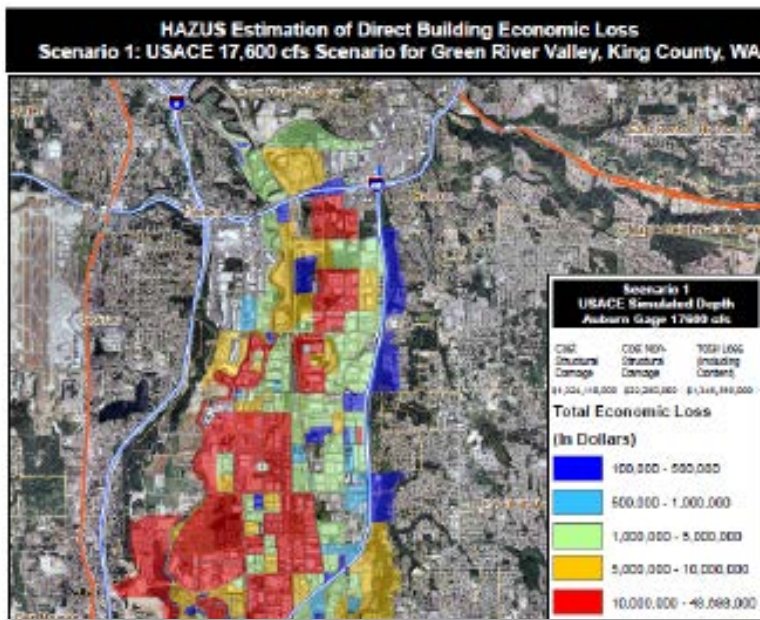


Multi-Frequency Depth & Water-Surface Elevation (WSE) Grids

10%, 2%, 1%, 0.5%, 0.2% annual chance profiles



Risk MAP Products

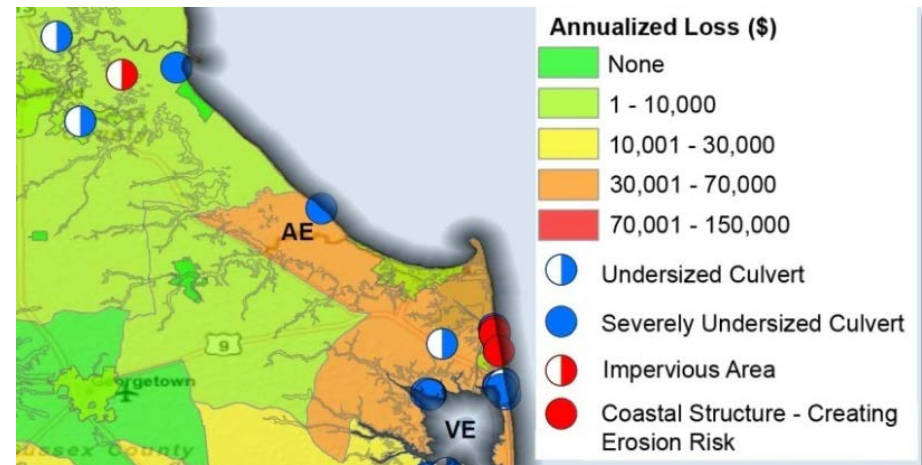


HAZUS Risk Assessments

Enables communities to understand risk by referencing existing structure loss

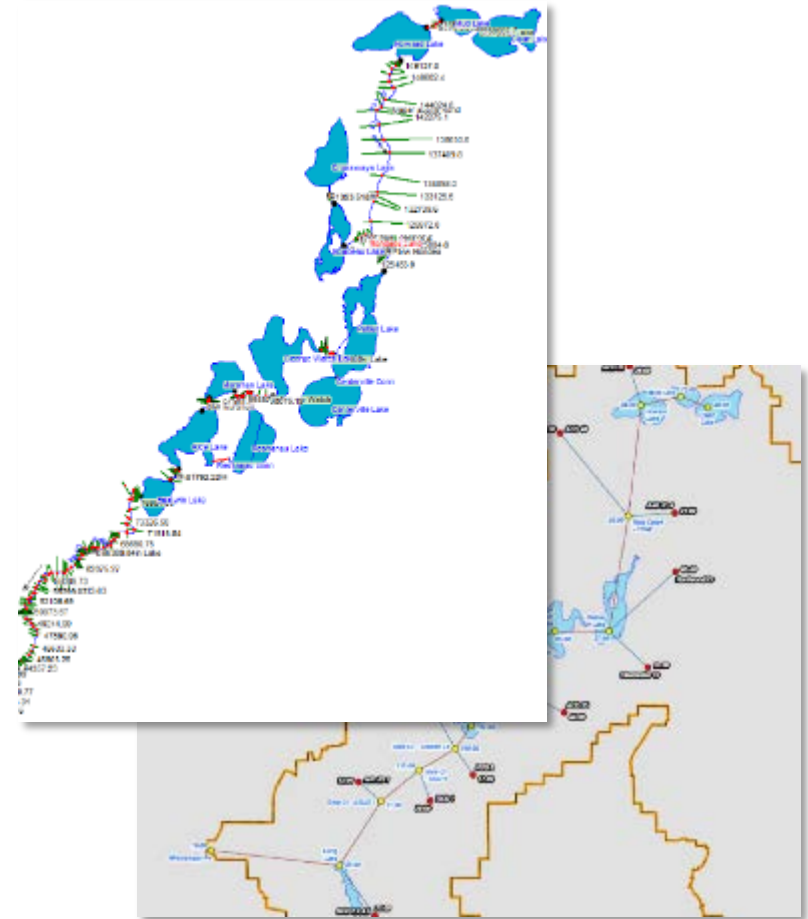
Contributing Flood Hazard Factors

Highlights areas of concern identified throughout the project area



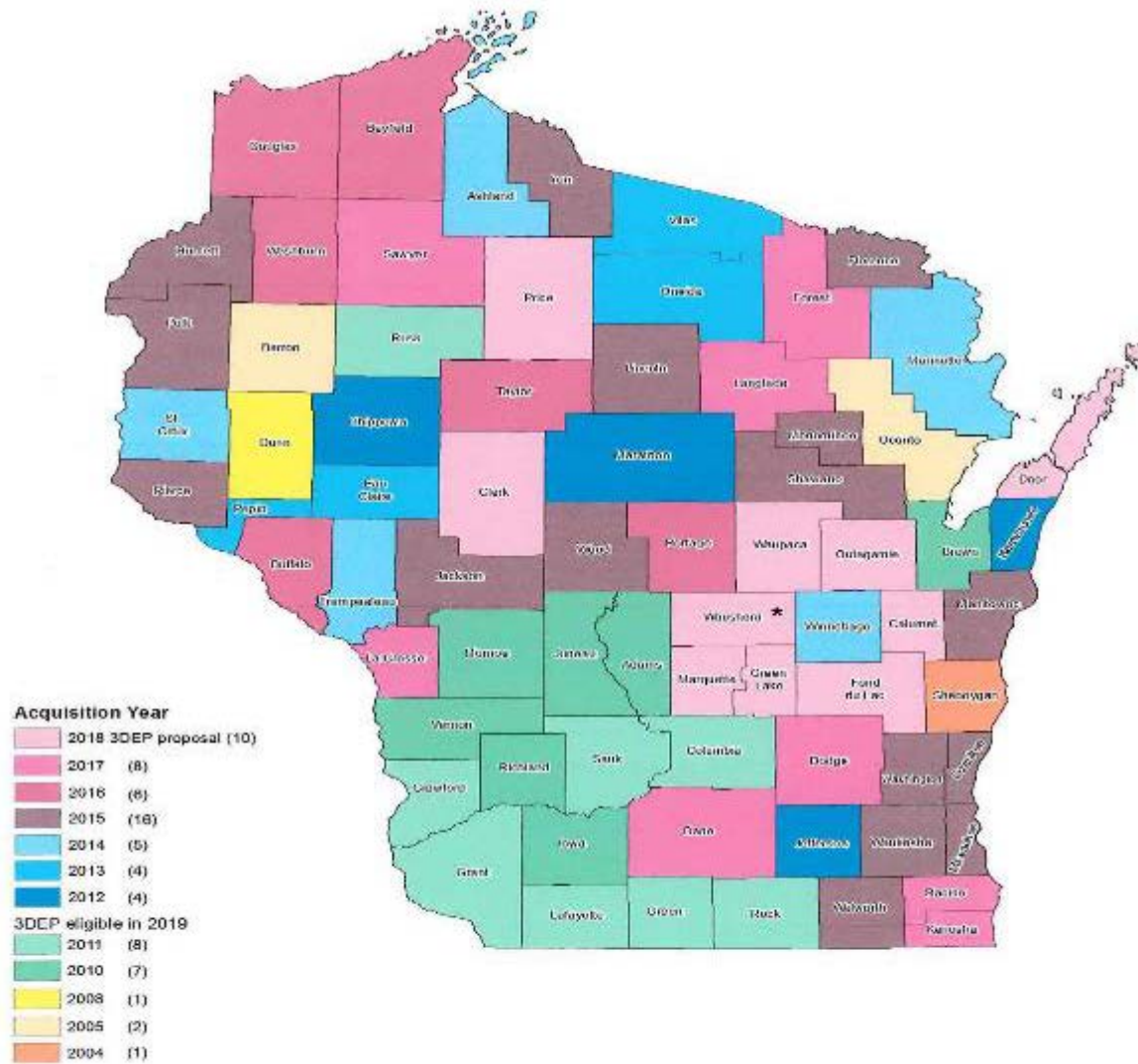
Existing Data Studies

- ▶ **USACE, USGS, DOT, MCD, developers, communities?**
 - Study Date
 - Flooding Source
 - Location
 - Contact Info: name and email
- ▶ **Watershed Groups**
 - Data studies
- ▶ **Must be submitted by communities to FEMA for use in project**



Rice Creek Watershed District

LiDAR Topographic Data



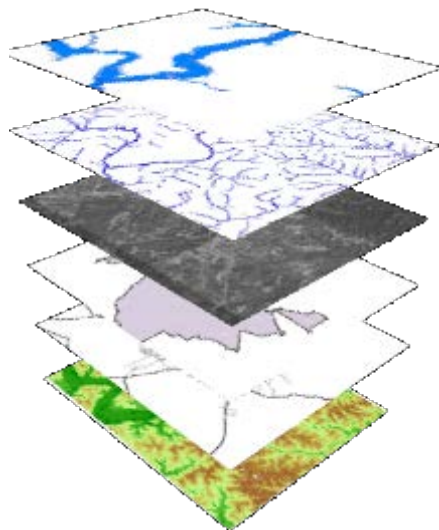
* LiDAR is being acquired through FEMA contract



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Leveraging Local Data

- ▶ **Updated mapping or mitigation projects a high priority?**
- ▶ **Contributed to LiDAR data collection or have other data to leverage?**
- ▶ **Some data listed below – please provide contact info for GIS person**
- ▶ **How data is used and leveraged in Risk MAP**



Transportation Layers	Land Use Data
Political Boundaries	Essential Facility Data
Parcel Data	Ortho-photography
Building Footprints	Other
Inundation Areas from Historic Flooding	Wetlands or Environmentally Sensitive Area Data

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Increasing Resilience Together



Wisconsin Emergency Management



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Floodplain Management and the NFIP



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Communications and Outreach

- ▶ Residents look to **local officials** for flood risk information
- ▶ A Risk MAP goal is to increase local knowledge of flood risk
- ▶ Risk MAP Communications and Outreach Resources
 - Enhanced Risk MAP Products
 - Visual, easy to understand, demonstration of risk
 - Where can they be posted?
 - Mailings? Public Meetings?
 - Resilience Meeting
 - FEMA Templates
 - Press Release
 - Talking Points
 - What may work in YOUR community?
- ▶ **CRS Program**
 - Insurance discounts for residents
 - Participating!



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National Flood Insurance Program (NFIP)

- A *voluntary* program
- A community adopts *and* enforces a floodplain ordinance and federally-backed flood insurance is made available to property owners throughout the community
- Partnership with
 - Local community
 - State
 - Federal government



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NFIP: Program History and Rating

▶ **Legislation**

- National Flood Insurance Act of 1968
- Flood Insurance Disaster Protection Act of 1973
- National Flood Insurance Reform of 1994

▶ **Historic Rate Structures:**

- Subsidized rates for pre-FIRM structures
- Actuarial rates for post-FIRM structures

▶ **Factors Used for Rating**

- Flood Zone
- Building Type
- Lowest Floor Elevation vs. Base Flood Elevation
- Foundation
- Age (pre- or post-FIRM)
- Amount of insurance and deductible



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Recent NFIP Reforms

- ▶ **Flood Insurance Reform Act of 2012 (Biggert Waters)**
 - Made the NFIP more financially stable by raising rates on certain classes of property to reflect true flood risk; and
 - Triggered rate changes for certain properties within a revised or updated map area to accurately reflect the flood risk.

- ▶ **Homeowners Flood Insurance Affordability Act of 2014**
 - Repeals and modifies certain provisions of BW-12
 - Makes additional program changes
 - Leaves some parts of BW-12 intact


Flood Insurance Basics

- ▶ May be purchased from most insurance agents who write flood insurance under a special arrangement with the Federal Government (WYO).
- ▶ Flood insurance is mandatory for all structures located in the Special Flood Hazard Area that have federally backed mortgages.
- ▶ Flood insurance is available to anyone in a community that participates in the NFIP

National Flood Insurance Program

The Choice Is Yours

WYO Companies Actively
Writing Flood Insurance
2014 – 2015



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Many of the nation's leading property and casualty insurance companies have opened their doors to flood insurance under the Write Your Own (WYO) Program by signing an arrangement with the Federal Emergency Management Agency. All policies are financially backed by the Federal Government, and companies must follow the rules and regulations of the program.

Policies may also be written directly with the Federal Government through the National Flood Insurance Program (NFIP) Direct Servicing Agent. For more information, contact the WYO Company of your choice or the NFIP Direct Servicing Agent or go to http://www.fema.gov/wyo_company.

Insurance Cost vs. BFE

Under the Flood Insurance Reform Act of 2012, You Could Save More than \$90,000 over 10 Years if You Build 3 Feet above Base Flood Elevation*

**PREMIUM AT 4 FEET BELOW
BASE FLOOD ELEVATION**

**\$9,500/year
\$95,000/10 years**



BFE

**PREMIUM AT
BASE FLOOD ELEVATION**

**\$1,410/year
\$14,100/10 years**



BFE

**PREMIUM AT 3 FEET ABOVE
BASE FLOOD ELEVATION**

**\$427/year
\$4,270/10 years**



BFE

*\$250,000 building coverage only (does not include contents), AE (high to moderate risk) zone, single-family, one-story structure without a basement at: 4 feet below Base Flood Elevation (BFE); at BFE; and at 3 feet above BFE. (Rating per FEMA flood insurance manual, October 1, 2012). The illustration above is based on a standard National Flood Insurance Program (NFIP) deductible.



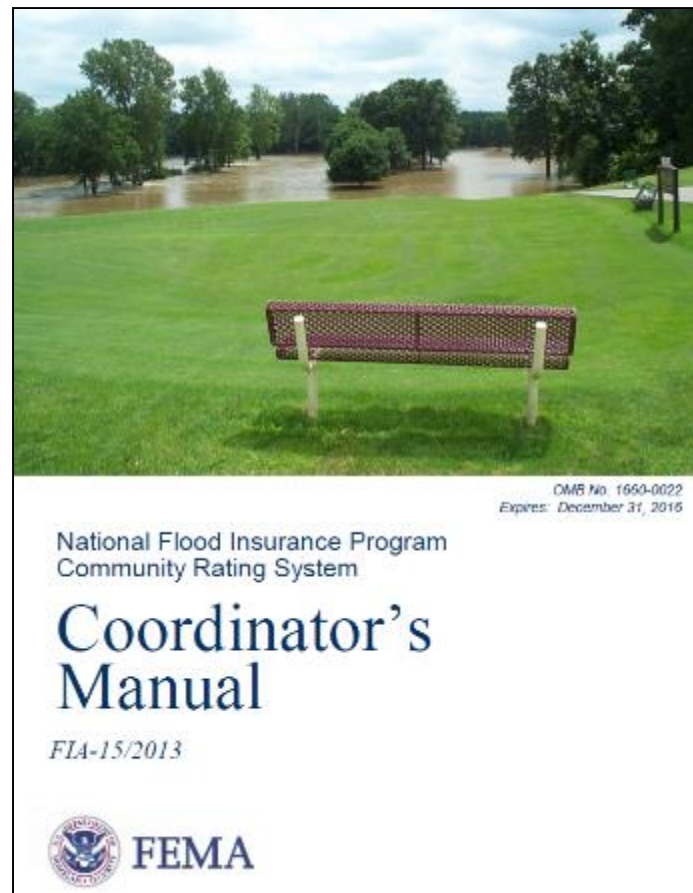
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Community Rating System (CRS)

- ▶ Voluntary incentive program for activities that exceed the minimum for participation
- ▶ 1,038 communities nationwide in the CRS program
- ▶ Premium rates reduced by increments of 5%

Community Rating System (CRS)

- ▶ CRS gives credits for 4 areas
 1. Public Information
 - Maintain Elevation Certificates
 - Outreach Projects
 2. Mapping and Regulations
 - Higher Standards
 3. Flood Damage Reduction
 - Acquisition & Relocation
 4. Flood Preparedness
 - Flood Warning & Response



<https://www.fema.gov/media-library/assets/documents/8768>

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Looking Forward



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Next Steps

- ▶ Today, we will work with you to review the community information we have collected so far.
- ▶ In the next few months, we will provide you with an updated Discovery Map and a Discovery Report.
- ▶ Next, we will determine areas that require further study and how the Risk MAP process will continue in your watershed.
- ▶ We will encourage and support communication and outreach throughout the study and within the community.



Breakout Sessions



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Discovery Breakout Session

- ▶ **Desired Study Areas/Mapping Needs**
 - Review and finalize Areas of Concern
- ▶ **Mitigation, Compliance, Communication**
 - Levees
 - Existing Data Studies
 - Funding
 - Data (terrain data, bridge plans, culvert inventory, etc)
 - Mitigation Planning
 - Desired Mitigation Projects
 - Environmentally Sensitive Areas
 - Communications and Outreach
 - Compliance and Training

Questions?

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- ▶ **Christine Meissner**, *Planner*, christine.meissner@fema.dhs.gov

Wisconsin DNR

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Wisconsin Emergency Management

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