

MN Floodplain (and Shoreland) Updates For MACPZA

Agenda

- DNR organization & roles related to floodplain management & state permits for work in state public waters
- Ongoing outreach efforts
- New/updated resources (Township guidance, Climate Trends webpage)
- Mapping updates
- Federal Flood Risk Management Standards (FFRMS)
- Other upcoming challenges 2D modeling
- Info sheet updates Your priorities for updated/new topics?
- Any other questions?

MN DNR Organization for Land Use & Public Water Permits Statewide Contacts

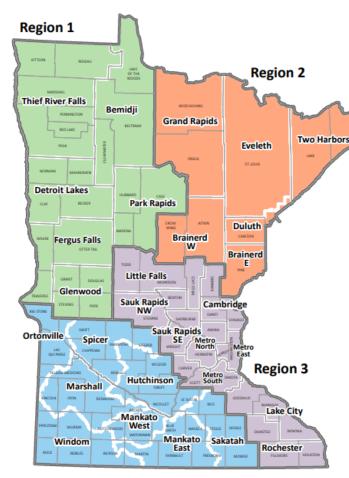
- New Land Use Unit Supervisor Emily Javens (started Dec. 2023)
- Floodplain Management/Insurance (NFIP coordinator) Ceil Strauss; assistant Garry Bennett
- Floodplain Mapping/Modeling Jeff Weiss
- State Flood Damage Reduction grant program Matt Bauman (started Dec. 2023)
- Shoreland/Rivers Dan Petrik
- Floodplain ordinances (and helping in floodplain/shoreland) Ricky Hoffman (started July 2024)
- Floodplain program: <u>floodplain.dnr@state.mn.us</u>
- Shoreland ordinance: ordinance.review.dnr@state.mn.us (see Aug. 2023 Water Talk)
- DNR Public Waters permit program Jen Sorensen
- DNR Appropriation permit program Dan Miller

MN DNR Organization – Field Staff

Area Hydrologists

- First contact for specific projects
- Issue public water permits & water appropriation permits
- Assist local officials on floodplain and shoreland management ordinance administration

Lots of new Area Hydrologists and regional managers



Region 4

ink to Area Hydrologist map

Region 1 - Northwest

Bemidji: Arne Wick
Detroit Lakes: Rodger Hemphill
Fergus Falls: Ryan Bjerke
Glenwood: Emily Siira
Park Rapids: Danica Derks
Thief River Falls: Stephanie Klamm

Region 2 - Northeast

Brainerd E: Kelly Condiff
Brainerd W: Jacob Frie
Duluth: Brianna Speldrich
Eveleth: Kim Boland
Grand Rapids: Rian Reed
Two Harbors: Danielle Braund

Region 3 - Central

Cambridge: Craig Wills
Lake City: Lucas Youngsma
Little Falls: Mark Anderson
Metro E: Daniel Scollan
Metro N: Wes Saunders-Pearce
Metro S: Taylor Huinker
Rochester: Nicole Lehman
Sauk Rapids NW: Nicola Blake-Bradley
Sauk Rapids SE: James Bedell

Region 4 - South

Hutchinson: Alan Gleisner Mankato E: Erynn Jenzen Mankato W: Katie Wigen Marshall: Kyle Jarcho Ortonville: vacant Sakatah: Todd Piepho Spicer: Emily Wolf Windom: Tom Kresko

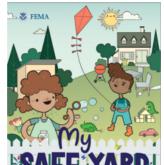
Regular Outreach – Water Talk newsletter

- Typically issued end of odd months, plus some bonus issues
- This past year: 9 issues November 2023, December 2023, January 2024, March 2024, May 2024, June 2024, July 2024, August 2024, September 2024
- See past issues on <u>Water Talk page</u> (can also subscribe at bottom of this page)
- Always floodplain topics (since effort is funded by FEMA grant), but also shoreland/river and other water-related or natural beneficial floodplain related
- Open to your ideas for topics of interest!

Water Talk Newsletter - September 2023

- My Safe Yard Coloring Book
- Oct. 23: New FEMA Elevation Certificate One-Hour Virtual Training
- DNR Floodplain Engineer Position Openings
- MnAFPM Registration Open Nov. 1-3, 2023
- New FEMA Flood and Flood Insurance Facts Flier
- Recordings Available for Winter 2023 Floodplain and Shoreland Trainings
- FEMA Region 5 Virtual Trainings Continue
- MN Floodplain Management Office Hours Continue
- FEMA Map Status Listing

My Safe Yard Coloring Book



Past coloring books have been popular with our Water Talk readers. FEMA staff noted a disaster safety focused issue we haven't previously shared - FEMA's My Safe Yard.

The book includes:

- Basics on preparing for floods and severe wind
- Coloring and activity pages

Oct. 23: New FEMA Elevation Certificate One-Hour Virtual Training

FEMA New Elevation Certificate virtual training

FEMA issued a new Elevation Certificate in July 2023 and

National Flood Insurance Progra

Regular Outreach – New LGU Page & Virtual Forums

- New "secret" local governmental unit page
- Started monthly virtual LGU forums in Feb. 2023 typically held 9:30-11 am on 3rd Wednesday of month
- Intent is a mix of DNR & local (or other agency)
 presenters with 10 20 minute talks, and time for
 questions & discussion
- Links to the Teams meeting for the forums on LGU page (and included in monthly LGU emails) or request series appointment
- Agendas added to page ~1 week before & pdf of presentations posted
- Will have polls for future topics at least once a year, but open to your ideas for topics of interest!

DNR resources specifically for Local Government Units

Note: this page requires a specific link to access. It is intended as a spot for sharing outreach specifically intended for officials of local government units (LGU) working with land use zoning.

Monthly LGU virtual forums

What: A monthly live virtual Teams forum for local officials involved in managing natural resources, especially for those involved in administering floodplain, shoreland or river-related ordinances, to learn and chat about topics of interest to you.

Purpose: Provide a regular opportunity for local officials and Department of Natural Resources to share information and have discussion outside of more formal trainings on topics that help you manage natural resources in your community.

How do I attend?

- Forums will be hosted from 9:30 to 11 a.m. on the third Wednesday of each month, beginning Feb. 15, 2023.
 Use the links listed under "Upcoming Forums" to join the live virtual meetings using Microsoft Teams software.

2024 forums

- Jan. 17 🗗 | Topic: Storm Water Higher Standards: BMPs in Shoreland Agenda (PDF) | Presentations (PDF)
- Feb. 21 🗹 | Topic: Mooring and Marina Standards Agenda (PDF) | Handout (PDF) | Presentations (PDF)
- March 20 [2] | Topic: Dealing with Floodplain and Shoreland Violations Agenda (PDF) | Presentations (PDF)
- April 17 🗷 | Topic: Stream Gaging and Flood Forecasting Agenda (PDF) | Presentations (PDF)
- May 15 ☑ | Topic: Natural Shorelines Agenda (PDF) | Presentation (PDF)
- June 12 | Canceled
- <u>July 17</u> 🗹 | Topic: Urban Flooding <u>Agenda (PDF)</u> | <u>Presentation (PDF)</u>
- Aug. 21 🕜 | Topic: New WCA Legislation: What's Changed? Agenda (PDF) Presentations (PDF)
- Sept. 18 🗹 | Topic: Grants: Focus on Reducing Flood Risk Agenda (PDF) Presentations (PDF)
- Oct. 23 | Cancelled
- Nov. 20 | Climate Trends Affecting Lakes and Rivers.

Regular Outreach – Monthly Emails

- New monthly "LGU Floodplain & Shoreland Reminders" emails to National Flood Insurance Program (NFIP) participating communities since April 2023
- Usually sent around 2nd Wed of month (last sent 9/12/2024)
- Sent to: Zoning/permitting (involved in floodplain or shoreland administration), engineering,
 EM's, other local staff interested in getting the updates
- Includes:
 - ✓ upcoming virtual monthly LGU agenda
 - ✓ monthly focus on resources or regulatory topic
 - ✓ links to any Water Talk issues sent since last monthly update
 - ✓ upcoming trainings
 - ✓ FEMA updates of interest to LGUs



Monthly Resources/Basics Highlights

Date	Topic
02/07/24	2022 MN Floodplain Management Quick Guide
03/14/24	Finding Official FEMA Maps (MSC site & Is My House in the FP? Video)
04/11/24	Minimum Elevations to be Met in Floodplain and Shoreland District
05/10/24	As-Built Documentation is Required
05/23/24	NA - Annual Focus on Flooding Prep
06/06/24	Checking Current (and Forecasted) River Gage Levels
06/25/24	NA - Bonus on Flood Response Resources
07/11/24	Post Flood Responsibilities for LGUs
08/01/24	NA - please take FEMA's training survey message
08/15/24	Finding LOMAs and LOMR-Fs
09/12/24	Community Acknowledgment Forms for LOMR-Fs



New Video: Overview of Lower Saint Croix Riverway Ordinance Administration & Sticky Issues

- New on-demand video training (about 55 minutes).
- This video provides a broad overview of the land use regulations within the Lower St. Croix Scenic Riverway in Minnesota.
- Target audience: planning and zoning staff who implement riverway regulations or other interested parties.
- Presented by Matt Bauman, DNR Lake and River Shoreland Program Manager, and recorded in May 2024.

Link to the online Lower Saint Croix Riverway training



Climate Trends Outreach Documents

- Oct. 13, 2022 DNR presentation at MACPZA conference "Effective Climate Messaging for Local Officials"
- July 2023 Fact sheets 1 & 2 drafted & revised based on land use unit, climatology, lake specialists
- August 2023+ Working with DNR's creative services design unit & web master on better graphics for fact sheets, and website design
- September 2024: New <u>Climate trends</u> <u>affecting lakes and river webpage</u>
 - ✓ See <u>September 2024 Water Talk article</u> about new site



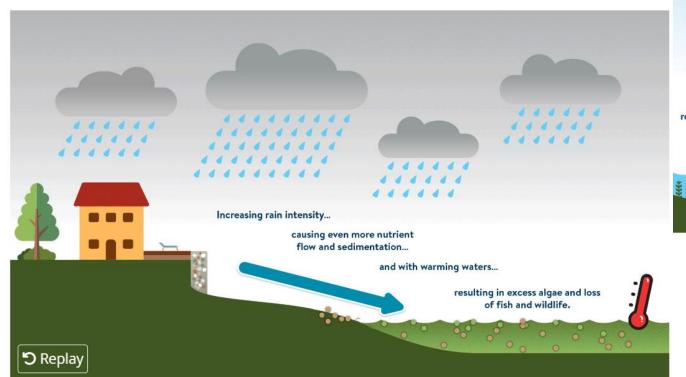
Climate Trends Webpage

Natural shoreline retained

In "What does it mean?" section, animations help tell the story

- Shore erosion/flooding webpage
- Water quality webpage

Contemporary shoreline development + climate trends





Climate Trends Webpage

Check out "What can you do?" section.

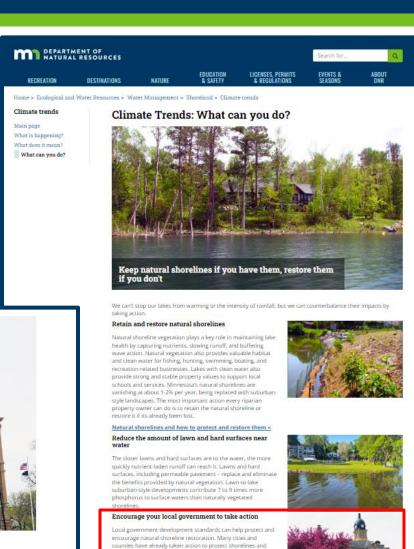
- ✓ Let us know if you have recommendations for links and/or additional content.
- ✓ Are there handouts or trainings you wish were available?

Encourage your local government to take action

Local government development standards can help protect and encourage natural shoreline restoration. Many cities and counties have already taken action to protect shorelines and slow the growth of algae. See what local governments are doing.

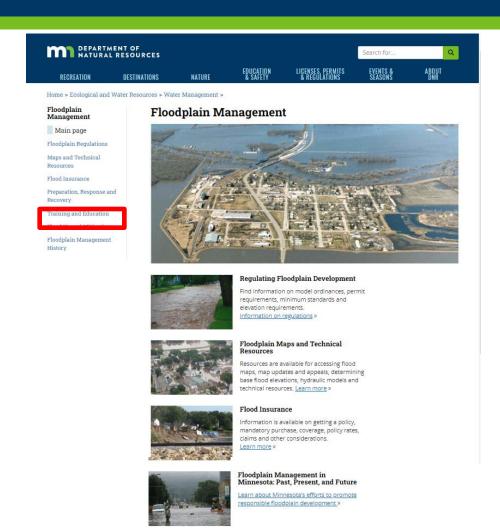
What local governments are doing »





slow the growth of algae. See what local governments are doing

DNR Floodplain Web Site



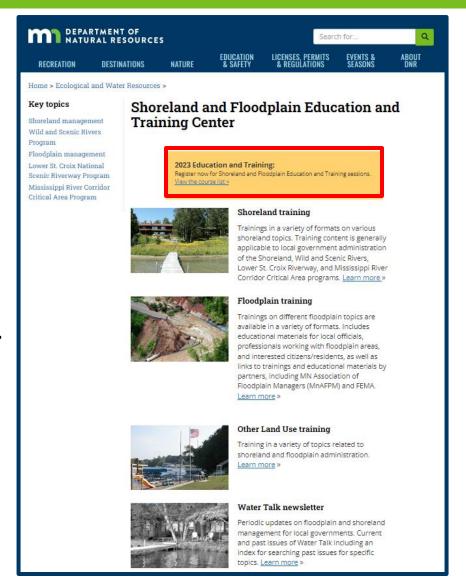
 Use mndnr.gov/floodplain or Search "MN Floodplain Management" for main page

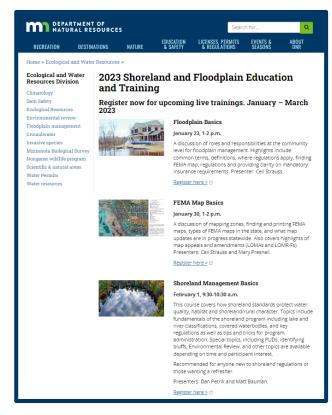
See upcoming trainings and past Water
 Talk newsletters on "Floodplain Training
 and Education" page (can also subscribe to
 Water Talk)

Trainings & Education Web Updates

Separate pages for:

- Shoreland Training
- Floodplain Training
- Other Land Use Training
- Water Talk Newsletter
 - Past issues





Past Year Virtual Trainings – Recordings Available

- ✓ 10/23/2023 FEMA New Elevation Certificate*
- ✓ 12/12/2023 Mississippi River Corridor Critical Area (MRCCA)*
- ✓ 1/08/24 Floodplain Basics



Shoreland training

Trainings in a variety of formats on various shoreland topics. Training content is generally applicable to local government administration of the Shoreland, Wild and Scenic Rivers, Lower St. Croix Riverway, and Mississippi River Corridor Critical Area programs. Learn more »



Floodplain training

Trainings on different floodplain topics are available in a variety of formats. Includes educational materials for local officials, professionals working with floodplain areas, and interested citizens/residents, as well as links to trainings and educational materials by partners, including MN Association of Floodplain Managers (MnAFPM) and FEMA.

- ✓ 1/10/24 FEMA Map Basics
- √ 1/22/24 Shoreland Management Basics
- √ 1/24/24 Floodplain grading & Non-structural Development*
- √ 1/29/24 Better Culverts & Crossings*
- ✓ 1/31/24 Flood Insurance Basics

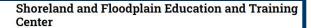
*New topic

- ✓ 3/06/24 Dealing with A Zones
- ✓ 3/11/24 Floodplain & Watershed Higher Standards
- ✓ 3/13/24 Shoreland Higher Standards
- √ 3/18/24 Floodplain Violations and Enforcement*
- √ 3/27/24 Substantial Damage & Post Flood Responsibilities
- ✓ 4/08/24 Post Disaster Recovery Process & Resources*

Recent/Anticipated Virtual Trainings in Jan to March 2025

Completed – Getting video ready:

9/23/24 Federal and State Grants to Reduce Flood Risk*



Register now. Live trainings begin in September 2024

Register now for Shoreland and Floodplain Education and Training session



Shoreland and river-related training

Trainings in a variety of formats on various shoreland and river-related topics. Training content is generally applicable to local government administration of the Shoreland, Wild and Scenic Rivers, Lower St. Croix Riverway, and Mississippi River Corridor Critical Area programs. Learn more.»



Floodplain training

Trainings on different floodplain topics are available in a variety of formats. Includes educational materials for local officials, professionals working with floodplain areas, and interested citizens/residents, as well as links to trainings and educational materials by partners, including MN Association of Floodplain Managers (MnAFPM) and FEMA. Learn more.



Other land use training

Training in a variety of topics related to shoreland and floodplain administration.

Learn more »



Water Talk newsletter

Periodic updates on floodplain and shoreland management for local governments. Current and past issues of Water Talk including an index for searching past issues for specific topics. Learn more »

Anticipated topics: *New topic

- √ Floodplain Basics
- ✓ FEMA Map Basics
- ✓ Planning & Zoning Basics*
- ✓ Floodplain Requirements for wells (& other Health Dept)*
- ✓ Floodplain Focus on accessory structures*
- ✓ Flood Insurance Basics
- ✓ Dealing with A Zones
- ✓ Floodplain & Watershed Higher Standards

- ✓ Climate web-based tools*
- ✓ Floodplain Administration Basics (update 2023)
- ✓ Floodplain Administration Advanced (update 2022)
- ✓ Floodplain Web-based Maps & Tools (update 2022)
- ✓ Substantial Damage & Post Flood Responsibilities
- ✓ What's FEMA doing postflood?*

Floodplain Trainings Page

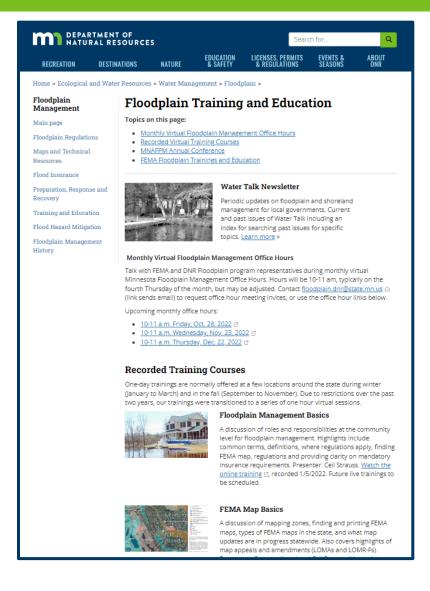
Virtual trainings:

- 2025 trainings to be posted in next 1-2 months
- Recordings of dozens of one-hour trainings from 2022 to 2024 available
- Upcoming FEMA monthly topics: 9-10 am 2nd Wed of month

Monthly Office Hours:

• DNR/FEMA 10-11 am - 4th Thu

In Person Workshops: In 2024, had one day workshops in Rochester (5/7) and Blaine (6/13); For 2025 – considering for March/April in Brainerd/Little Falls & Metro

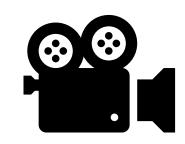


Draft Letter of Map Change Videos

Goals

- Cover most common questions
- Keep each video under 10 minutes
- Target audience is local officials and homeowners, so aim to keep in plain language for person with no background





Current draft video topics

- 1. My house is in FEMA mapped floodplain, But I think it's high. What are the options to get the FEMA zone changed?
- 2. What is a Letter of Map Amendment (LOMA)?
- 3. How do I apply for a Letter of Map Amendment Out As Shown (LOMA-OAS) or a LOMA with LiDAR?
- 4. What is a Letter of Map Revision based on Fill (LOMR-F)?
- 5. How to Apply for Letters of Map Amendments (LOMAs) and Letters of Map Revisions (LOMR-Fs).
- 6. Creating LOMA with LiDAR Map Using DNR's Lake & Flood Elevations Online (LFEO) Application

Next Set of On-Demand Video Ideas

Goals

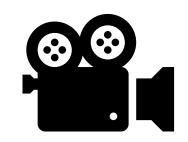
- Cover most common questions
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- Target audience is local officials and homeowners, so aim to keep in plain language for person with no background

Determining Base Flood Elevation Series

- Determining BFEs on Lakes (might break into detailed versus A zones)
 - Detailed study, see FIS or <u>DNR Lake & Flood Elevations Online (LFEO)</u> viewer
 - A Zones, see LFEO, use "shoreland method", check past Letters of Map Change (LOMAs, LOMR-Fs)
- 2. Determining BFE on watercourses with detailed studies
- 3. Determining BFE on A Zone watercourses (no detailed studies)

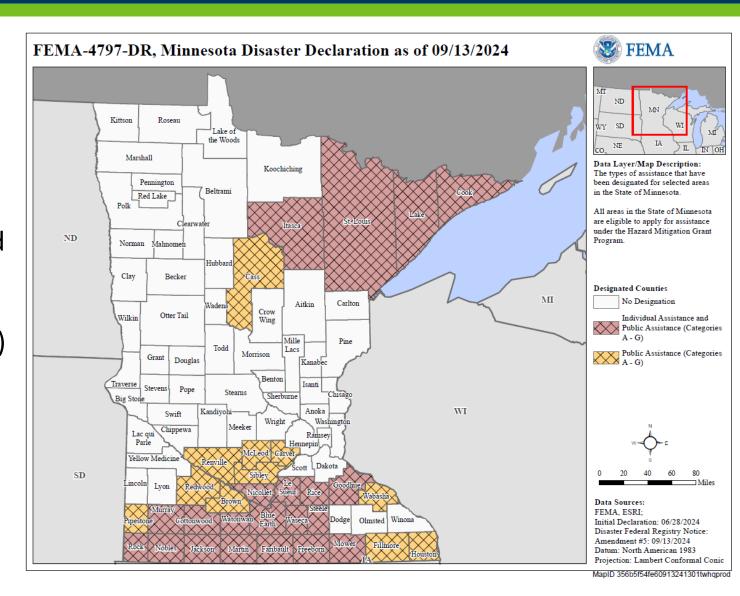
Other common topics good for a video?





Disaster Declaration

- Flood response responsibilities
 - ✓ Permits for repair
 - ✓ Substantial Damage determinations
- Federal and State Grant options
 - ✓ New Swift Current (if policy holder and Repetitive Loss or SD in this event) -\$10 M for MN
 - ✓ Other FEMA grants (HMGP, BRIC, FMA)
 - ✓ State Flood Hazard Mitigation
 - ✓ See 9/23/2024 Federal and State Grants for Flood Reduction virtual training video (will be available online soon)



Update on Townships Clarifying When They Have Shoreland / Floodplain Authority

Issue

- Unclear whether townships are administering all or portions of Shoreland and/or Floodplain ordinances
- Past FEMA guidance on townships not clear

Goals

- Clarify legal authorities for townships versus counties for Shoreland and Floodplain
- Work with MN Association of Townships & MACPZA on Shoreland and Floodplain guidance for townships
- Verify FEMA interpretation of when townships are the floodplain zoning authority

Update on Townships – Floodplain & Shoreland Authority

Discussed process last year . . .

- Final Guidance Completed:
 - Shoreland Nov. 3, 2023
 - Floodplain Nov. 27, 2023
- Links posted on Minnesota Association of Townships (MAT) site at Planning, Zoning, and Land Use webpage
- Link posted on DNR webpages:
 - Floodplain Ordinances page (at bottom) <u>Considerations for Township</u> <u>Adoption of a Floodplain Ordinance</u>
 - Shoreland Regulations (under Fact Sheets) <u>Shoreland Considerations</u> for <u>Township Adoption of a Shoreland Ordinance</u>
- Dan Petrik and Ceil Strauss presented on guidance at MAT conference Dec. 8, 2023



development within the mapped floodplain, or if the mapped floodplain consists of

 Minnesota No Map Floodplain Ordinance (PDF) - Adoption of an ordinance is required in order to participate in the NFIP – whether a community has their flood risk areas

mapped or not. This ordinance is for communities that do not have a FEMA flood risk map, or if there are no flood risk areas within your corporate boundaries on a FEMA

large lots that can accommodate alternative building locations.

. Considerations for Township Adoption of a Floodplain Ordinance (PDF

Overview: Risk MAP



- Previous effort to modernize maps
- Result: digital flood data and digital maps for 92% of population
- Improved flood data quality
- Limited up-front coordination
- Scoping not mandatory

RiskMAP

Increasing Resilience Together

- Collaborative approach
- Goals: quality data, public awareness, action that reduces risk
- Watershed-oriented
- Focus on up-front coordination
- Discovery is mandatory

Watershed Discovery Process

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

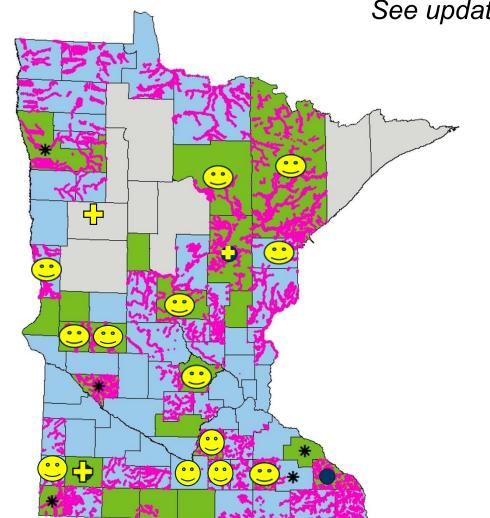


- Increases visibility of flood risk information, education, involvement
- Helps inform whether a Risk MAP project will occur in the watershed



Mapping Updates Flood Insurance Rate Maps (FIRMs)

See updates of this map on DNR's Find Flood Maps page



- New DFIRM in Dec. 2023 to March 2025
- DFIRM Counties
- Paper Map Counties
- Unmapped Counties
- Estimated 1% Base Flood Elevations
- * Preliminary DFIRMs Available
- Countywide Modernization
- Funded through Preliminary New Maps

New Mapping Update process

- HUC8 Watershed Discovery
 - HUC8 Discovery Kickoff
 - > Zone A modeling done
 - HUC8 Discovery meeting
- Countywide update
 - Countywide Kickoff
 - Countywide preliminary new maps issued
 - Local official meeting ("CCO") & Public Open House
 - 90-Day appeal period
 - Letter of Final Determination (LFD)
 - > Communities adopt new maps
 - Effective new maps

~ 2-3 years

~ 6 months

~ 6 months

Firm 6 months

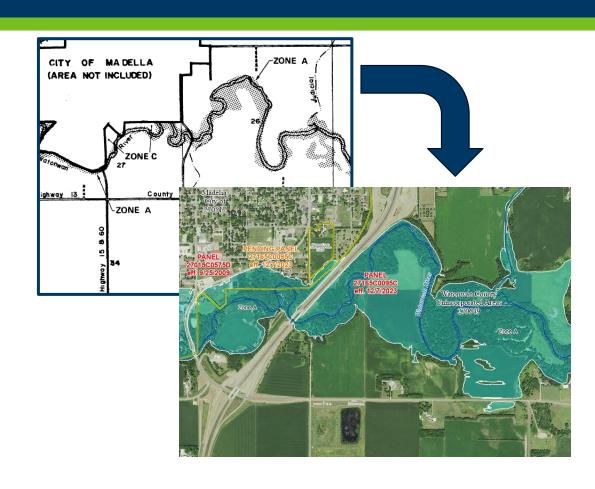
~ 2 yrs

~ 4-5 yrs (much longer if appeals, etc.)

New Effective FEMA Maps (Since 2023 MACPZA Conference)

New Effective Map Dates:

- Watonwan County Dec. 7, 2023
- Blue Earth County Feb. 22, 2024
- Carlton County March 13, 2024
- Waseca County March 27, 2024
- Pipestone County April 25, 2024
- Wright County June 20, 2024
- Wilkin County (panels) June 20, 2024
- Le Sueur County July 17, 2024
- Morrison County July 31, 2024
- Stevens County Sept. 12, 2024
- Dodge County Sept. 26, 2024
- Pope County Sept. 26, 2024



* Letter of Final Determine issued

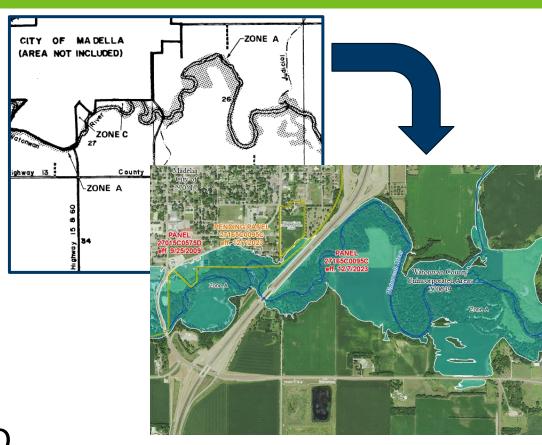
New Scheduled to be Effective

Scheduled New Effective Map Dates:

- Itasca County March 11, 2025*
- St. Louis County March 25, 2025*

Have Prelims - Future Letters of Final Determination (LFDs):

- Olmsted County (levee) TBD
- Chippewa County TBD
- Wabasha County TBD
- Rock County (revised in Luverne area) TBD



Preliminary New Maps (subject to change...)

Preliminary New Maps:

- Olmsted (levee panels) Dec. 20, 2023
- Wabasha County April 25, 2024

Anticipated Preliminary New Maps in next year:

- Aitkin County
- Murray County
- Rock County (revised in Luverne area)
- Winona County

Other Mapping Projects

Better Data Letters of Map Revisions (LOMRs)

Cottonwood/Windom

- ✓ Aug. 3, 2023 Flood Risk Review Meeting
- ✓ Sept. 2023 submitted to FEMA
- ✓ Dec. 12, 2024 Effective

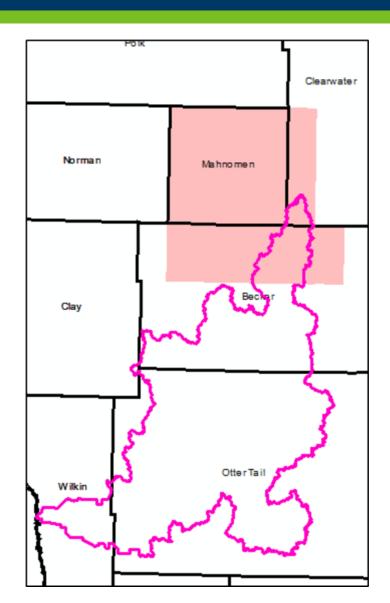
Wilkin/Nashua

- ✓ June 6, 2023 Flood Risk Review Meeting
- ✓ July 2023 submitted to FEMA
- ✓ Oct. 3, 2024 Effective

Rainy River

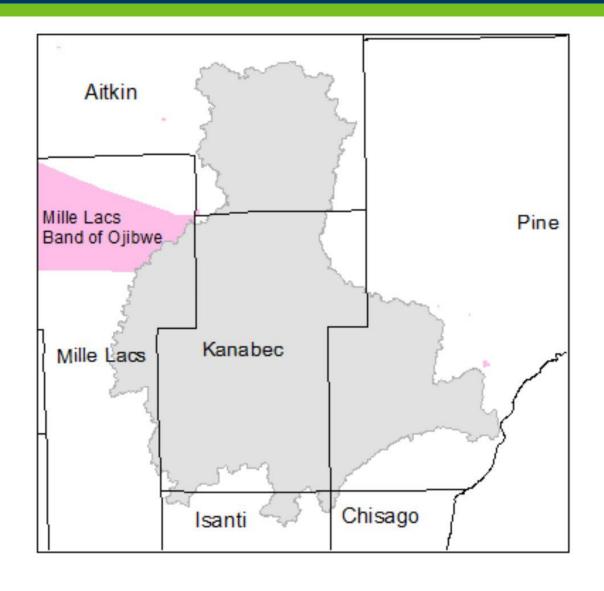
✓ Oct. 4, 2023 Kickoff

Becker County Outside Otter Tail River HUC8 Project



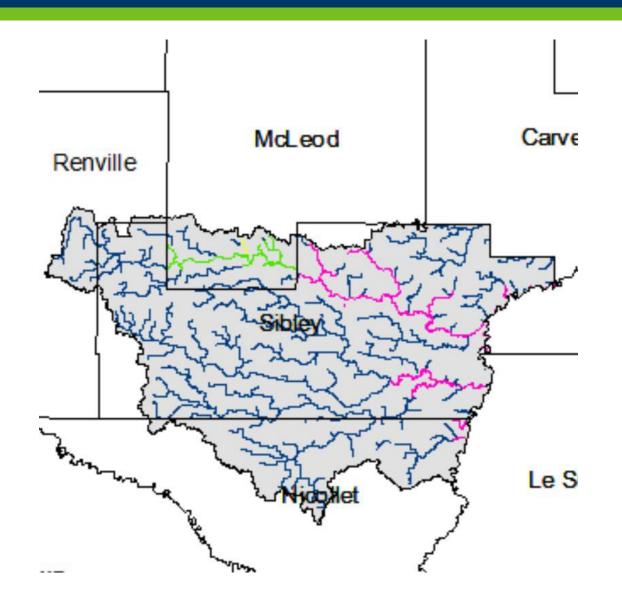
- Kickoff April 30, 2024
- Working on data development

Snake River HUC-8 Discovery



- Most of Kanabec, parts of Aitkin, Isanti, Mille Lacs, Pine & Chisago (tiny)
- Getting supporting data for A zones in Kanabec & small area in Isanti
- Timing
 - ✓ Aug. 22, 2023 Kickoff
 - ✓ March 20, 2024 Discovery
 - ✓ May 14, 2024 Final Report

Lower Minnesota River (West) HUC-8 Discovery



- Most of Sibley, parts of McLeod,
 Nicollet & Renville
- Getting supporting data for A zones in Sibley & Nicollet (pink lines in map to left)
- Timing
 - ✓ Aug. 23, 2023 Kickoff
 - ✓ March 21, 2024 Discovery
 - ✓ May 5, 2024 Final Report

Projects Oct. 2024 – Sept. 2025

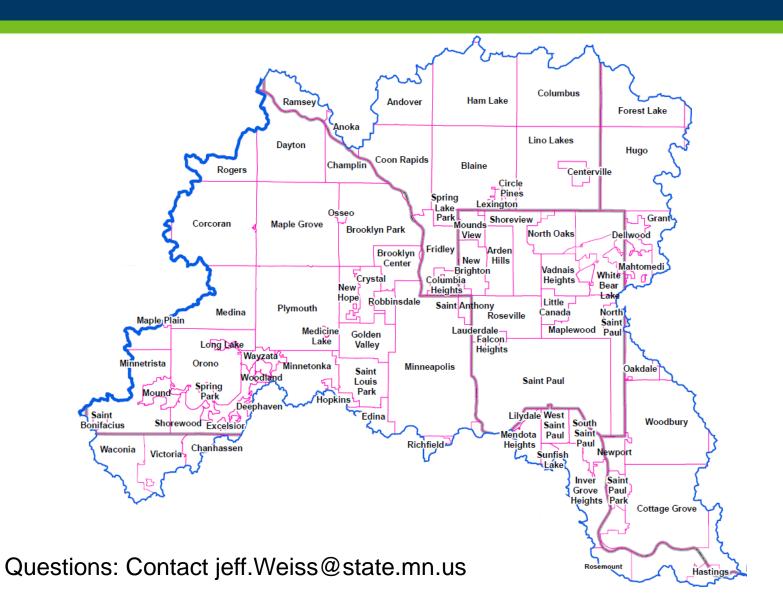
DNR staff led

- Twin Cities (East) HUC8
- Anoka County outside of Twin Cities HUC8 (data development)
- Rock County revised preliminary (panels)
- Dodge County Better Data LOMR (Cedar River area)
- Rainy River Better Data LOMR (hopefully near completion)

FEMA contractors

Polk County Discovery

Twin Cities HUC-8 Data Development



- 2018 2025 (approx.)
- Getting supporting data for A zones
- Delineating A and AE Zones with LiDAR
- Working with several watershed districts to incorporate new AE hydrology & hydraulics

County Level Floodplain Map Viewers



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

Floodplain Management History

County Data and Map Viewers

The following counties have data and/or viewers available, in addition to the official FEMA maps on <u>FEMA's Maps Service Center</u> \(\mathbb{Z}\).

- Anoka County
 - o <u>County Supported Map Viewer</u> ☑ includes features to help with Letter of Map Amendment applications
- Blue Earth County
- Carlton County
- Chippewa County
- Cottonwood County
 - ∘ Pending New FEMA Map

 (will be effective September 24, 2021)
- Goodhue County (part of county)
 - o Preliminary New FEMA Map ☑ (as of Feb. 10, 2020)
- Hennepin County

See Anticipated Map Update Timing

Estimated FEMA Map Modernization Status in Minnesota - by County



9/30/2024

Note: Dates shown as Month-Year are estimates; Dates shown as MM/DD/YY are actual date

County	Status	Preliminary Map	Local Official / Open House	90-day starts	90-day ends	LFD*	Effective map date**
AITKIN	Co Modernization	2024					NA
ANOKA	Effective	9/30/2011; rev 7/16/13	12/15/11	2/21/14	5/21/14	6/16/15	12/16/15
BECKER	No Map						NA
BELTRAMI	No Map						NA
BENTON	Effective	9/29/09	12/8/09	5/18/10	8/16/10	2/16/11	8/16/11
BIG STONE	Effective	10/01/04	2/16/05	6/21/05	9/21/05	10/17/05	4/17/06
BLUE EARTH	Effective	12/9/09; rev 4/20/11; 9/12/18; 8/28/20 (3 panels); 2/15/23 (panels)	6/1/11; 11/7/18; 1/5/21; 6/10/21	9/21/11; 7/29/21; 11/10/21	12/20/11; 10/26/21; 2/8/22	8/22/23	2/22/24
BROWN	Effective	6/15/06	8/9/06	1/4/08	4/4/08	3/25/09	9/25/09
CARLTON	Effective	5/28/2021	8/19/21; 9/23/21	3/31/22; 6/24/22	6/29/22 9/22/22	9/13/23	3/13/24
CARVER	Effective	9/30/11; rev 9/14/15 & 1/31/18	3/8/2012; 7/19/2016	12/29/16	3/29/17	6/21/18	12/21/18
CASS	No Map						NA
CHIPPEWA	90-Day Ended	12/20/22	7/19/23	2/1/24	5/1/24	2025	2025
CHISAGO	Effective	2/19/10	5/12/10	11/11/10	2/10/11	10/17/11	4/17/12
CLAY	Effective	2/13/09	6/3/09	1/4/10	4/4/10	10/17/11	4/17/12
CLEARWATER	No Map						NA
COOK	No Map						NA
COTTONWOOD	Effective	06/25/19	12/18/19	7/15/20	10/13/20	3/24/21	9/24/2021
CROW WING	Effective	5/27/2011; rev 6/30/11	9/28/11	11/5/15; 12/11/15	2/2/16; 3/9/16	2/15/17	8/15/17
DAKOTA	Effective	7/3/08	9/24/08	11/24/08; 11/17/10	2/22/09; 2/18/11	rescinded; reissue 6/2/11	12/02/11

National Flood Insurance Program (NFIP) Status

- Latest extension to Dec. 20, 2023
- Tends to be tied to continuing resolutions for budget

What happens if the NFIP expires?

- No new flood insurance policies
- No renewals of flood insurance policies

Remember – A flood insurance policy is mandatory if:

- 1. any portion of the building is in or touching FEMA mapped Special Flood Hazard Areas (Zone A/AE or Zone V/VE)
- 2. The loan is federally backed (most mortgages & secured loans



Federal Flood Risk Management Standards (FFRMS) – Some History

1977 - Executive Order 11988 - Signed by President Carter

- Federally funded projects must meet NFIP standards
- Critical facilities outside of 500-year

2015 - Executive Order 13690 - Signed by President Obama

- Encourages nature-based solutions
- Adding three approaches

2017 - Executive Order 13807 - Signed by President Trump

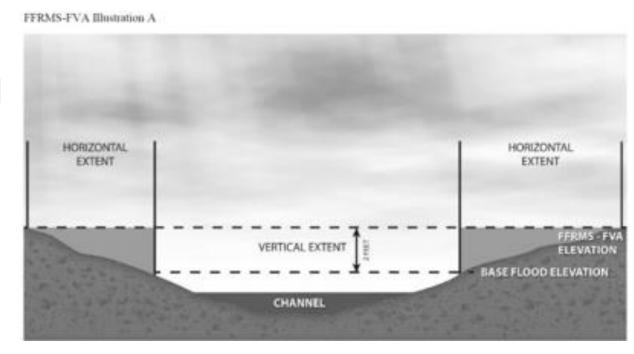
Revoked E.O. 13690; so back to E.O. 11988

2021 – Executive Order 13807 – Revoked by President Biden

Back to E.O. 13690

FFRMS Approaches from E.O. 13690

- Climate-Informed Science Approach (CISA)
 - ✓ mainly Sea Level Rise; not currently used in FEMA Region 5
- Freeboard Value Approach (FVA)
 - ✓ Critical facilities 3-foot freeboard
 - ✓ Non-critical facilities 2-foot freeboard
 - ✓ If using FVA, using the horizontal extension
- 0.2 percent annual chance Flood Approach (0.2FPA)



New HUD Rules (effective April 23, 2024) – FHA Loan Impacts

What: Single Family homes within the Special Flood Hazard Area (SFHA) must meet two-foot freeboard (have lowest floor at Base Flood Elevation +2') to be eligible for FHA loans

Note: will not apply to expanded area

When: New construction after 1/1/2025 (building permit date).

Note: will not apply to substantial improvement of existing Single Family Homes

How does that compare to MN minimum standards?

✓ If community has the state minimum standards, the single family homes will NOT be eligible for FHA loans

FEMA FFRMS Rules – Effective Sept. 9, 2024

See <u>final FEMA Policy: Federal Flood Risk Management Standard (FFRMS);</u> FEMA Policy 206-24-005

What is funded by FEMA?

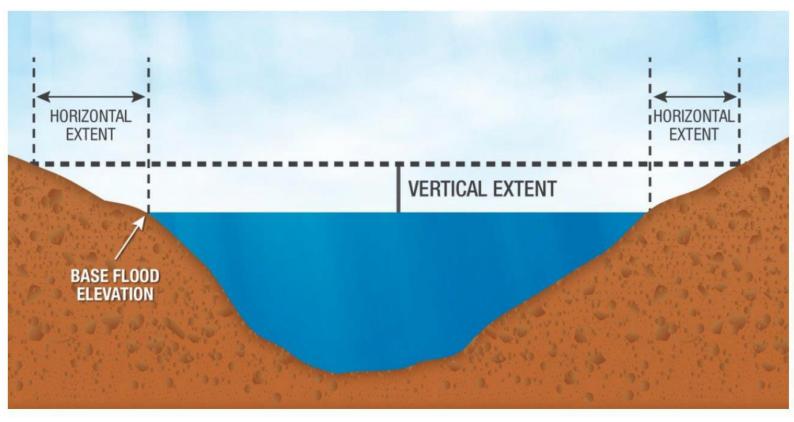
- Public Assistance (PA) post disaster assistance for public infrastructure & buildings
- Hazard Mitigation Grant Program (HMGP) grants after declared disasters, used statewide
- Flood Mitigation Assistance Program (FMA) national competitive grants

Won't affect current disaster declaration, but will impact future declarations, and future grants for Notice of Funding Opportunities (NOFOs)

FEMA FFRMS Rules – Where Do they Apply?

Within the FFRMS floodplain, i.e., within the floodplain with the horizontal expansion

- ✓ Critical actions Higher of 3 foot above BFE or 0.2%
- ✓ Non-critical actions Lower of 2 foot above BFE or 0.2%



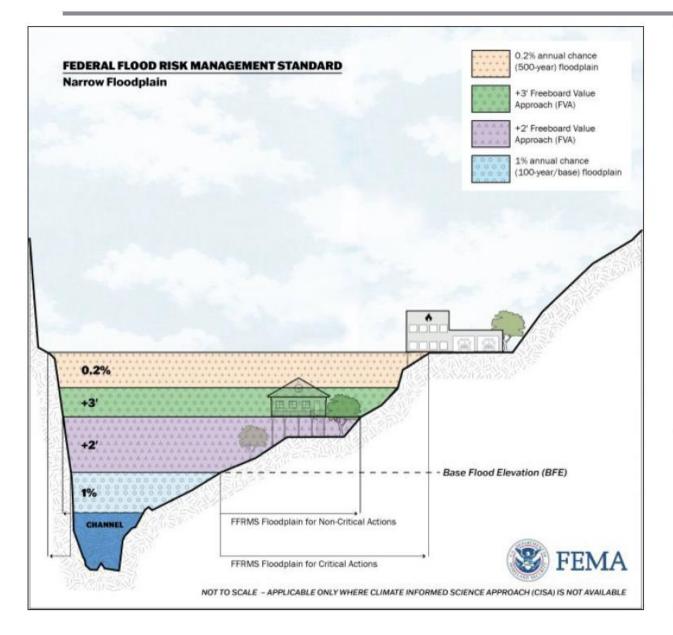
What is a "Critical Action"

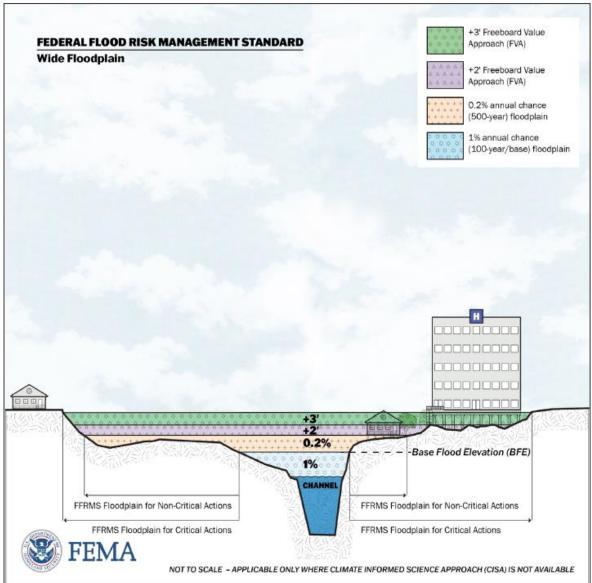
- A critical action is an activity or action for which even a slight chance of flooding is too great.
- Examples of critical actions include:
 - Structures that store highly volatile, flammable, explosive, toxic or water reactive materials;
 - Hospitals and nursing homes, and housing for the elderly;
 - Emergency operation centers or data storage centers;
 - Power generating plants and other principal points of utility lines.





Determination of the FFRMS Floodplain





FEMA FFRMS Rules – Culvert Replacements

When is it a Substantially Damaged (SD) culvert?

From E.6. of Policy

"SI/SD Determinations for Facilities. Cases where the cost of improvement to a facility or cost to repair damage to a facility exceeds 50% of the facility's replacement cost will be determined SI/SD. For example, if work to repair a culvert costs more than 50% of replacing the culvert, FEMA will consider that facility to be substantially damaged. If a facility is an essential link in a larger system, such as a roadway or electrical system, the percentage of damage will be based on the relative cost of repairing the damaged facility to the replacement cost of the portion of the system which is operationally dependent on the facility."



FEMA FFRMS Rules – Must Use Nature-based Solutions

From F.1. of Policy

"Alternatives to a proposed action: For actions located within or that may affect a floodplain or wetland, the following alternatives must be considered: a) no action; b) alternative locations; and c) alternative actions, including alternative actions that use natural features or nature-based solutions. Where possible, the Agency shall use natural systems, ecosystem processes, and nature-based solutions.19

The requirement to consider natural features and nature-based solutions applies to all actions that are subject to the alternatives analysis (Step 3 of the 8-step process)—not only to Actions Subject to the FFRMS."

FEMA FFRMS Rules – Culvert Replacements

From G.2. of Policy

Flood Risk Minimization for Facilities

"The FFRMS is a resilience standard. Particularly in cases where elevation may not be feasible or appropriate for non-structure facilities, the FFRMS floodplain, determined according to the process described in section C of this policy, establishes the level to which a structure or facility must be resilient. Resilience measures include using structural or nonstructural methods to reduce or prevent damage; elevating a structure; or, where appropriate, designing it to adapt to, withstand and rapidly recover from a flood event."

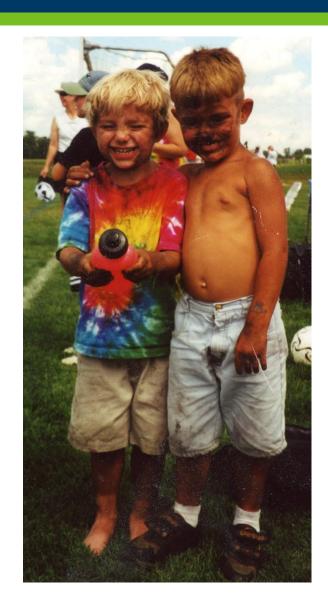
Bottom Line: No more replacing in-kind if that is not resilient design

Floodplain Culvert: Before (top) vs After (bottom)

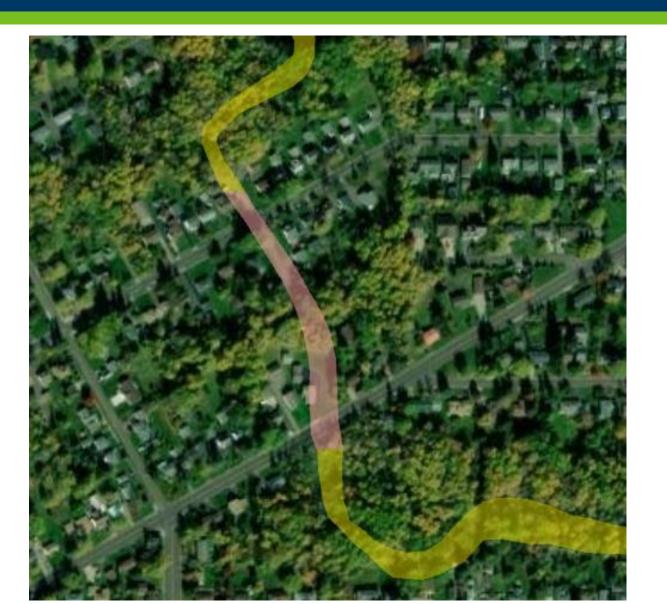


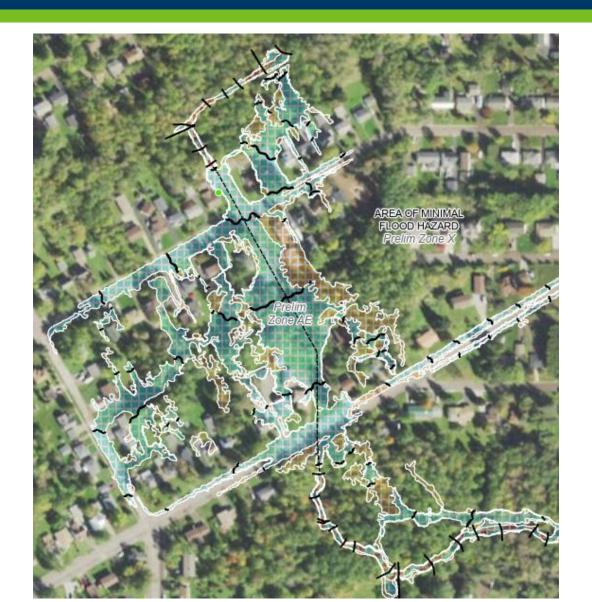


Regulating 2D Mapped Areas - Future Messy Situation



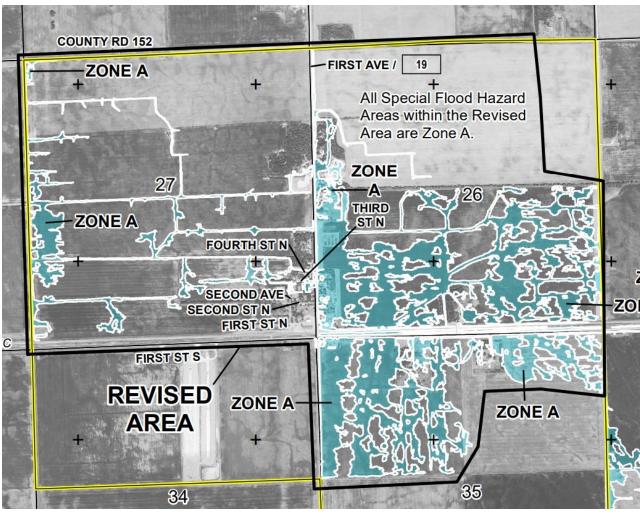
1D (left) Versus 2D (right) Modeling & Mapped Areas





2015 (left) Versus 2024 2D (right) Modeling & Mapped Areas





Updating Old Floodplain Information Sheets New Estimating 100-Year on Lakes Info Sheet



Floodplain Informational Sheet 1

Estimating the 100-Year (1% Annual Chance) Flood Elevation on Lakes

For many of Minnesota's lakes, the 1% annual chance flood elevation has not been determined by a detailed engineering study. However, it may be possible to estimate the 1% annual chance flood elevation using the shoreland management rules method.

What is the shoreland management rules method?

The statewide rules for shoreland management (Minnesota Rules 6120,2500–3900) have minimum elevation requirements for structures within the shoreland district. They require minimum elevations based on floodplain regulatory elevations, if available, if not available, the lowest floor of structures must be at least 3 feet above the highest known water level (HKWL) or the ordinary high water level (OHWL), whichever is higher. Since Minnesota floodplain regulations require the lowest floor of structures to be at least 1 foot above the 1% annual chance flood elevation, the 3-foot requirement under shoreland management rules includes 1 foot of freeboard. Therefore, the estimated 1% annual chance flood elevation using this method is 2 feet above the OHWL or HKWL, whichever is higher (See Figure 1).



Figure 1. For lakes without established base flood elevations, the 1% annual chance flood elevation using the shoreland management rules method is estimated by adding 2 feet to the OHWL or HKWL, whichever is higher.

When is it reasonable to use the shoreland management rules method?

Using this simplified method may be appropriate under the following conditions:

- The lake has an outlet.
- Available data include either the ordinary high water level or an extensive water level history (ideally documenting a severe hydrological event, such as the 1% annual chance flood), preferably both.
- The development is small. (For developments larger than 50 lots or 5 acres, whichever is smaller, federal regulations require a detailed study to determine the 1% annual chance flood elevation.)

The shoreland management rules method for estimating the 1% annual chance flood on lakes can be used for floodplain developments even when a community does not have a shoreland ordinance. FEMA recognizes this as an effective method to determine flood risk. However, if extensive development has occurred or is anticipated on a lake, the DNR recommends a more detailed study than this method provides.

New (Sept. 2024) FP Info

Replaced 2006 version!

Floodplain Information Sheet 1

Floodplain Management Series

DNR Waters

Estimating the 100-Year Flood Elevation on Lakes

For many of Minnesota's lakes, the 100-year flood elevation has not been determined with a detailed engineering study. This flood elevation refers to the level that flood waters might reach or exceed in a flood that has a 1-percent chance of occurrence in any given year. However, enough information often is available for a lake to use the shoreland management rules method to approximate the flood elevation of a lake.

What is the shoreland management rules method?

The statewide rules for Shoreland Management (Minnesota Rules 6120.2500–3900) have minimum elevation requirements for structures within the shoreland district (see 6120.3300), subpart 3, B). The shoreland rules recommend using flood elevations determined through detailed studies if they are available. If they are not available, the lowest floor of structures must be at least 3 feet above the highest known water level (HKWL) or the ordinary high water level (OHWL), whichever is higher. Since the Minnesota floodplain regulations require the lowest floor of structures to be at least 1 foot above the 1-percent chance (100-year) flood elevation, the 3-foot requirement under shoreland management rules includes the foot of freeboard. Therefore, the 100-year flood elevation would be 2 feet above the OHWL or HKWL, whichever is higher. (See Figure 1.)

When is it reasonable to use the shoreland management rules method?

Using this simplified method may be appropriate under the following conditions:

- The lake has an outlet.
- Available data include an extensive water level history, water level documentation associated with a severe hydrological event (100-year flood or larger), or both.
- The flood elevation estimate is unsuitable for a development larger than 50 lots or 5 acres, whichever is smaller. Federal regulations (44 Code of Federal Regulations, Chapter 1, Section 60.3 [b] [3]) require that a detailed study be done for "all new subdivision proposals and other proposed developments."

If extensive development has occurred or is anticipated on a lake, DNR Waters recommends a more detailed study than this method provides.

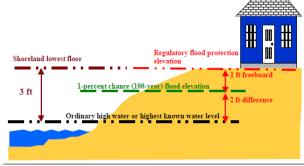


Figure 1, Comparison of 1-percent chance (100-year) flood elevation to shoreland management rules method.

Minnesota DNR – Ecological & Water Resources Division September 2024 Page 1 of 2

Updating Old Floodplain Information Sheets Next Info Sheets in the Works

Floodplain Information Sheet 3

Floodplain Management Series

Residential Uses -FP Info Sheet 3

Residential uses and standards in a floodplain

When property owners discover their property is in a floodplain, a common reaction is to assume they cannot use or develop it. In some parts of the floodplain

most uses are allowed, but the structi of property damage during a flood.

Two key questions must be answered that

- 1. Floodway or flood fringe? prepared by the Federal Emergency Man fringe? (See "What are the floodway and the flood use restrictions than property in a flood fr
- 2. Local zoning? What uses are al limits; county zoning if it is in a rural area standards. Your community will have zon residential, commercial, industrial, and open to the zoning use guidelines, your comm federal minimums

What uses are allowed

Floodway uses

- . Open space uses and limited grading a any increase in the flood levels. Uses such your zoning district.
- · New structures, additions to existing
- A structure built before the publicat fathered" with the following conditions: A structure may continue to be
- but no addition may be constr
- If a structure is damaged (e.g., b than 50 percent of the pre-dama

Flood fringe uses

- . The use must be allowed by the under
- · New structures and additions to exist on fill (Figure 1).
- · New structures and additions, after a co may use alternative elevation methods, if a community. (See "Conditional Uses in the Flor
- Accessory structures (e.g., garages, she properly elevated on fill or flood-proofed ment" structures). (See "Residential Accesse fringe" information sheet #5).

(continued on back...)

Contact: DNR Ecological & Water Resources

Floodplain Information Sheet 3

Floodplain Management Series

- · A structure built before the publication date of your community's first FEMA floodplain map (pre-FIRM) is "grandfathered" with the following conditions:
 - A structure may continue to be used, repaired, and maintained, but additions must be elevated or properly flood-proofed in compliance with current community regulations
 - If a structure is damaged (e.g., by fire, flood, tornado) by more than 50 percent of the pre-damage value or if the cumulative additions and improvements are more than 50 percent of the original structure's inflation-adjusted value, the entire structure would have to be reconstructed to comply with the community's floodplain regulations (thus losing "grandfather" status).

What are the key building standards for residential structures in flood fringe?

If possible, build outside the floodplain, with your lowest floor (including basement) above the regulatory flood protection elevation (RFPE). This reduces your risk of flooding, and you will not be required to buy flood insurance. Also, if you build outside the high flood risk zone (the 1-percent chance or 100-year flood zone), preferred risk policy (PRP) flood insurance is available at a significantly reduced premium.

If you must build in the flood fringe, work with your community to ensure that all local regulations are addressed in your proposed building plan. NOTE: Local ordinances may be more restrictive.

The key building standards that meet state and federal law (Figure 1) include:

- · No placement of fill is permitted in the floodway.
- . Top (i.e., walking surface) of the lowest floor (including basement or crawl space) is at or above the RFPE.
- · Fill is at 100-year flood elevation plus floodway stage increase, or higher, extending at least 15 feet horizontally from all
- . An "as built" survey is submitted to the zoning authority to verify that the development was built at the permitted
- · Must meet all local ordinance requirements, including setback* requirements (i.e., from lot lines, and for shoreland management or wild and scenic rivers ordinances). Many communities also require that the access (driveway and access roads) elevation is no lower than 2 feet below the RFPE.

*Setbacks are typically measured from the ordinary high-water (OHW) level, which is the top of the bank of the channel on watercourses. The OHW is not the same as the 100-year floodblain elevation, serves a different burbose, and is usually at a lower elevation

RFPE Formula Equivalent Terms and Definitions 100 year flood elevation + stage increase due to floodway Base Flood Elevation (BFE) - Same as the 1 percent + freeboard (state requires 1 foot minimum) annual chance flood elevation or the "100-year" flood = regulatory flood protection elevation (RFPE) Regulatory Flood Protection Elevation (RFPE) - The RFPE is the 100-year flood (1 percent annual chance flood) elevation + stage increase due to establishing floodway + freeboard (Minnesota's minimum is 1 foot). The lowest floor must be elevated so that the walking surface of that lowest floor is at the RFPE or higher. Figure 2. Key standards for structures in the flood fringe (picture not drawn to scale). Contact: DNR Ecological & Water Resources in St. Paul (651) 259-5700

Floodplain Information Sheet 4 Elevation (RFPE). Lowest floors include basements and lowest level floor is above the REPE

Floodplain Management Series

Basement & Lowest Floors for Homes in a Floodplain

Determining the "lowest floor" of a structure in a floodplain is important because the top (i.e., walking surface) of the lowest Lowest Floor-Lowest floor of the lowest enclosed floor must be at or above the Regulatory Flood Protection area (including basement or crawl space). The lowest floor level must meet minim

spaces of any size. An improperly elevated lowest floor result in a significant increase in flood insurance prem

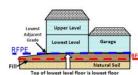


Figure 1. A concrete slab on grade is permitted for a home in a floodplain if the top (walking surface) of the

The floodplain regulations apply to all enclosed spaces do not differentiate between finished versus unf able versus not habitable, or a space that is more than a co minimum height versus a space that is only a couple feet h

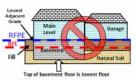


Figure 2. This example is not permitted for a home in a floodplain because the basement is the lowest level of the home and it is below the RFPE.

Myths and Facts of

Myth: It is not a basement if I cannot stand up in it. Fact: It does not matter if a basement is 2 feet or 8 feet It is a basement if it is below grade on all sides.

Myth: It is not a basement if the floor is unfinished or di Fact: It does not matter if a basement floor is concrete or

Contact: DNR Waters in St. Paul (651) 259-5700 http://mndnr.gov/waters

Basement & Lowest Floor-FP Info Sheet 4

Floodplain Information Sheet 4

Related Definitions

Floodplain Management Series

Basements & Lowest Floor Special Cases

What is called a "basement" in common language usage in Minnesota is not always consistent with FEMA's definition of a "basement." In addition, there are other special situations to consider.

1. Walkout basement

The typical Minnesota walkout basement is not a "basement" according to FEMA (Figure 4). FEMA's basement definition says all sides are subgrade (below ground level), but the typical walkout basement has one complete side (the walkout side) with the floor at the same level as the adjoining ground level. If the walkout basement level is above the regulatory flood protection elevation (RFPE), the local community may issue a standard build-

A related but prohibited layout is shown in Figure 5. Occasionally, a landowner will excavate an area adjacent to one side of the basement floor. However, unless there is gravity flow drainage over the ground surface toward the flooding source, this is still considered a basement.

2. Natural ground is above 1% annual chance flood elevation If no fill is brought in, and the lowest adjacent grade (lowest place where soil touches building) is above the 1% annual chance flood elevation, the structure is officially out of the high-risk flood zone where floodplain man agement regulations apply (Figure 6). This structure may still be subject to

Floure 5. Excavating an area adjacent to a basement severe flood damage from subsurface water pressure against the basement gravity flow drainage away from that lowest side.

Figure 4. A walkout basement or lower level is

permitted for a home in a floodolain if the top of

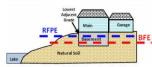


Figure 6. Lowest Adjacent Grade is above Base Flood Elevation A or AE. Minimum floodplain regulations do not apply. the site is in shoreland district, there are still minimum elevations

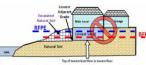


Figure 7. Same situation as in Figure 6, but they excavated to make a walkout basement. They have put themselves into the high flood risk area (Zone A or AE) and must meet the floodplain regulations, so now

3. Dry-floodproofed basements & "internally flooded enclosures below the lowest floor"

- Federal regulations and state law give communities the authority to issue conditional use permits for a few floodproofing options for the lowest floor if:
- (a) the community's floodplain management ordinance includes those options,
- (b) the space will be used for a limited number of specific uses (usually only for parking, limited storage, and access to up-
- (c) the floodproofing proposal meets all the other limitations for that floodproofing option (i.e., dry floodproofing is allowed for non-residential structures only unless the community is one of the eight Minnesota communities with a formal exception from FEMA for dry floodproofing of residential basements), and
- (d) specific technical standards and legal requirements are met.

See the floodplain information sheet "Conditional Uses in the Floodplain" for more information.

Contact: DNR Waters in St. Paul (651) 259-5700

August 2010

Updating Old Floodplain Information Sheets Next Info Sheets in the Works

Floodplain Information Sheet 8



High Flood Risk Area 1% Annual Chance Flood Area Base Flood Elevation (BFE) "100-year" Floodplain Special Flood Hazard Area (SFHA)

High Flood Risk Area - Area shown on FEMA maps as AE or A zones. This is the area with a 1% annual chance of being ~ 2001 on) the high flood risk area is a blue stippling. On older maps it is a darker shading (see below)



newer FEMA maps as shaded X zone and on older FEMA maps as B zone. This is the



High & Medium Flood Risk Area on older (before 2001) maps - The darker gray is the high risk (Zone A, AE or A#) & the light gray is the medium

100 Year Flood Boundary -

PROGRAM (NFIP)?

HOW DO I FIND OUT IF MY THE NATIONAL FLOOD INSURANCE

Check with your community or go to FEMA's "Community Status Book" at www.fema.gov/cis/MN.pdf

(Pages 1-12 are participating communities and Pages 13-15 are communities with mapped high flood risk areas that do not participate. Cities not included on either of these two lists do not have FEMA maps & do not participate.)

Floodplain Management Series

Flood Insurance - FAQs

Doesn't my homeowners policy cover flooding?

NO. In most cases, flood damage is NOT covered by homeowners' policies.

Who CAN purchase NFIP flood insurance?

Anyone who lives in a community that participat Insurance Program (NFIP) can buy flood insu all Minnesotans live in a community enrolled in

NOTE: It is NOT NECESSARY for your high flood risk area (1% annual char in order to be eligible to purchase flo anywhere in the community and be

Who SHOULD purchase flood insurance?

Being outside of the mapped high flood risk area dry! There has been 10+ inch rains in localized a If you live near an area of past flooding, conside

Can renters purchase NFIP flood insurance

YES! NFIP flood insurance is sold separately for communities, renters can purchase up to \$100,000

Who is REQUIRED to purchase NFIP flood it

Property owners are required to purchase flood: ture is located within, or touches, the high flood or "100-year" floodplain) and if the property is g it from a federally regulated institution or has rec disaster assistance. This includes most types of mor

NOTE: Flood insurance is MANDATORY in the high flood risk area. It is NOT UNIMPROVED LAND is in the a lender may have a policy of requir

HOW do I purchase NFIP flood insurance? NFIP flood insurance is sold through private ins

and is backed by the federal government. Check have your home or automobile insurance. You can www.floodsmart.gov and choose "Agent Locator"

When does a NFIP flood insurance policy b

There is a 30-day waiting period before flood in The waiting period is not applicable in some circ associated with a new or modified loan or within date for a Flood Insurance Rate Map (FIRM) tha high flood hazard area (for the first time).

Flood Insurance - FAOs

Flood Insurance -FP Info Sheet 8

Floodplain Information Sheet 8

Floodplain Management Series

Does NFIP flood insurance cover contents?

YES, but NFIP flood insurance is sold separately for building and contents coverage. Home and business owners need to ask whether their policy includes the building coverage, contents coverage or both. (The exception is with a "Preferred Risk Policy", or PRP, where the building and contents coverage is bundled together in set increments).

WARNING: For loans from federally-regulated institutions, federal law mandates purchase of flood insurance if the insurable STRUCTURE is in or touches a FEMA mapped high-risk flood zone. (NOTE: The federal mandate to purchase flood insurance is not applicable if part of the lot, but no insurable structure, is in or touches the high flood risk area.) However, the lender only has to require building flood insurance coverage. Home and business owners should be aware that contents coverage must be purchased separately.

Does the NFIP flood insurance offer any type of basement coverage?

Yes it does. While flood insurance does not cover basement improvements (such as finished walls, floors, or ceilings), or personal belongings kept in a basement (such as furniture and other contents), it does cover structural elements and essential equipment. Examples of what is insured under the building coverage includes: foundations, walls, attached staircases, central air conditioners, drywall for walls & ceilings, fuel tanks, furnaces, water heaters, heat pumps and sump pumps. The contents coverage insures; washers, dryers, food freezers and the food in them (but not refrigerators) and portable air conditioners. However, most floor coverings, walls/ceilings not made of drywall, bookcases, paneling and personal property (like clothing, furniture, & electronic equipment) are

Consider the depth of flooding anticipated and what is most likely to be damaged when deciding the amount of coverage needed, and whether to purchase the separate contents coverage.

HOW DO I SEE THE FEMA MAP FOR MY AREA?

Go to www.msc.fema.gov. It's easiest to search by address, but FEMA shows other options. FEMA also has a tutorial on how to make a "FIRMette," which is an 8-1/2" x 11" clip of the map with the scale and map panel





"FIRMette" for newer FEMA map

This information is available in an alternative format on request

Minnesota toll free: 1-888-646-6367 Telecommunication device for the deaf (TDD): (651) 296-5484 DNR Waters in St. Paul: TDD toll free: 1-800-657-3929

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Page 2 July 2010

Next priorities?

New topics?

Questions?







Thank You!

Ceil Strauss

Ceil.Strauss@state.mn.us

651-259-5713