

# Being Prepared for Flooding: Roles, Planning, Forecasts, Education

NCR Center for Rural Development & Extension Disaster Educational Network

March 7, 2023

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NDSU

EXTENSION

# Disaster Education

- Disaster education **IS** a role for Extension!



# Extension Roles

Position	Preparedness	Response	Recovery	Mitigation
Everyone	Home & Office Plan	Family first	Family first	
Administrators	Roles and Plans established	Engage Plan	Communicate, allocate, support	Support programming
State specialists	Develop resources	Provide expertise	Provide expertise	Provide expertise
Local educators/agents	Communicate with local emergency manager	Gather and deliver educational resources	Focus on education and facilitation	Update office plans
Communications staff	Continually update resources (web, print, etc.		<ul style="list-style-type: none"> <li>Develop needed educational resources</li> <li>Serve as liaison to media</li> </ul>	
EDEN Team	<ul style="list-style-type: none"> <li>Provide plan templates</li> <li>Lead preparedness</li> </ul>	Facilitate resource identification and development		

# Prepare Your Family & Office

- Take care of your family first
  - Disaster supplies kits
  - Communications plans
  - Meeting place & evacuation routes
- Prepare your office
  - Communication plans
  - Alternative locations
  - Resources available in multiple formats



# Local Involvement

- Get to know your county emergency manager ***now***
  - Is Extension in your the county emergency operations plan?
  - What information and skills do you have to help in preparedness, response or recovery?
  - Define your role. Educator? Facilitator? Volunteer coordinator? Public information officer?



# Local Involvement

- Take part in county planning discussions
  - Collaborate with others to address local needs
  - Join Community Organizations Active in Disasters





# Share & Document

- Let specialists know issues and what content you need
- Record related work, including hours and expenses for possible FEMA documentation
- Take photos of Extension staff in action



# NDSU Extension Contacts

- Ken Hellevang
  - Structure preparedness
  - Dike building
  - Repair, Clean-up, including mold removal
- Miranda Meehan
  - Educational resources
  - Connection to state agencies and EDEN

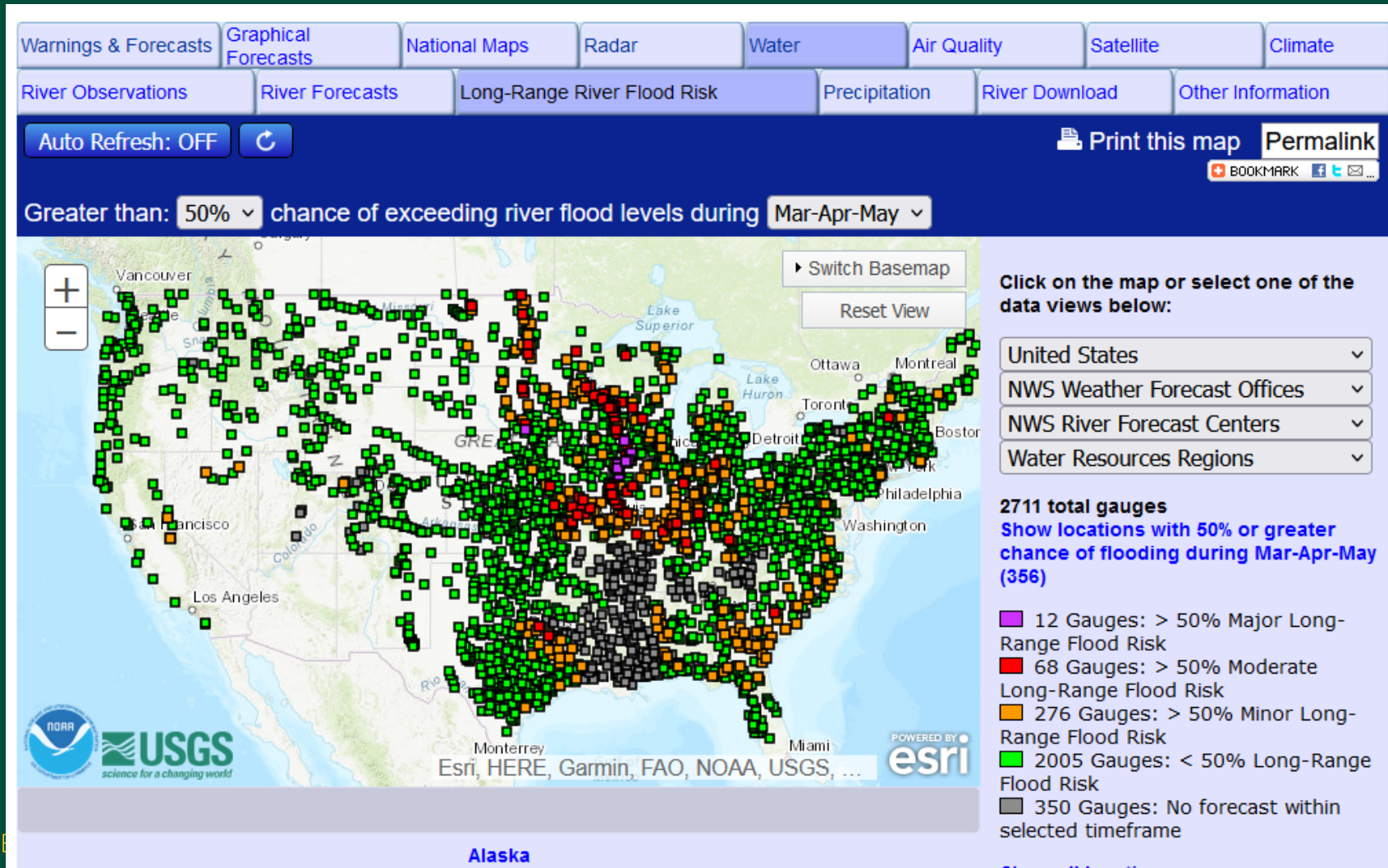


# NDSU Extension Contacts

- Tom Scherer
  - Sump pumps, wells and other water issues
- Sean Brotherson
  - Stress
- Miranda Meehan
  - Livestock issues
- Julie Garden-Robinson
  - Food safety

# NOAA Flood Risk

- [https://water.weather.gov/ahps/long\\_range.php](https://water.weather.gov/ahps/long_range.php)

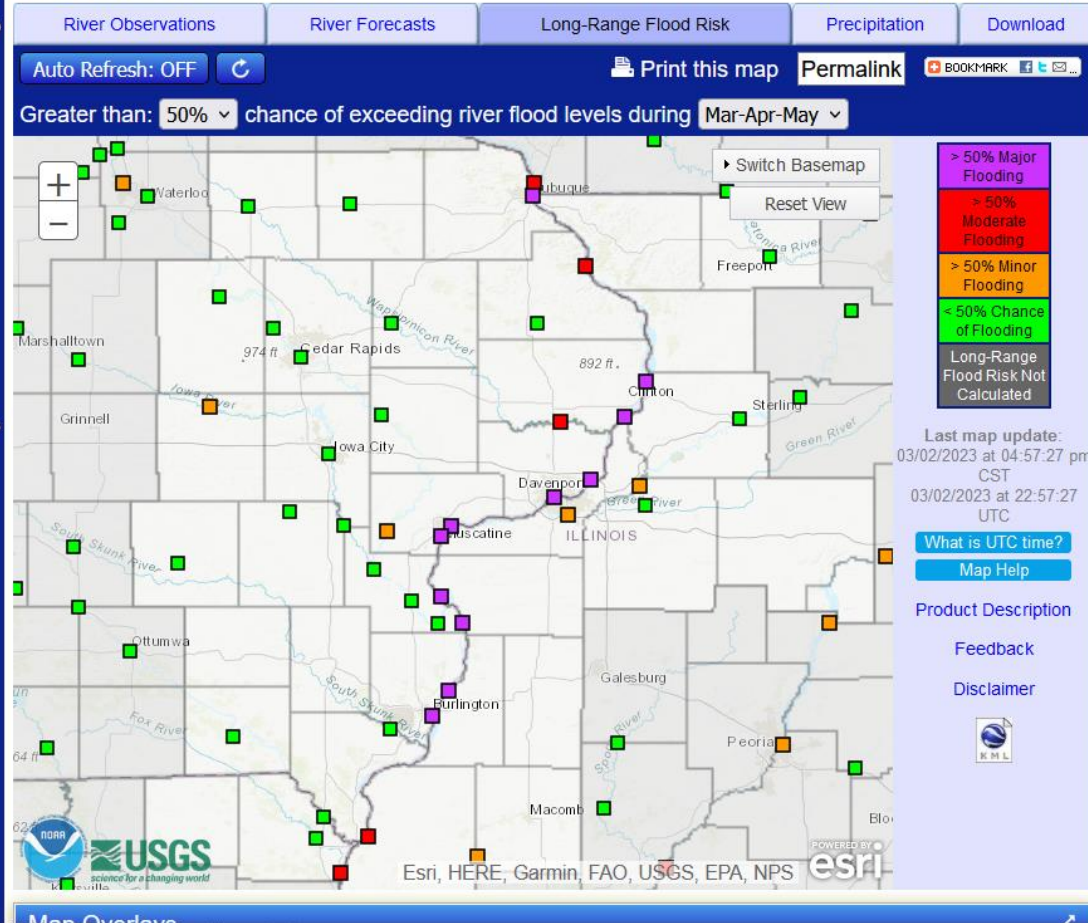


**ALERT!!** A **Flood Warning** and **Flood Watch** are in effect for portions of the area.

View all valid statements/warnings or choose a specific point or river to get the details for that location.

Weather Forecast Office Quad Cities, IA

North Central River Forecast Center




This probabilistic forecast is issued by the North Central River Forecast Center.

Hydrograph

River at a Glance

Download

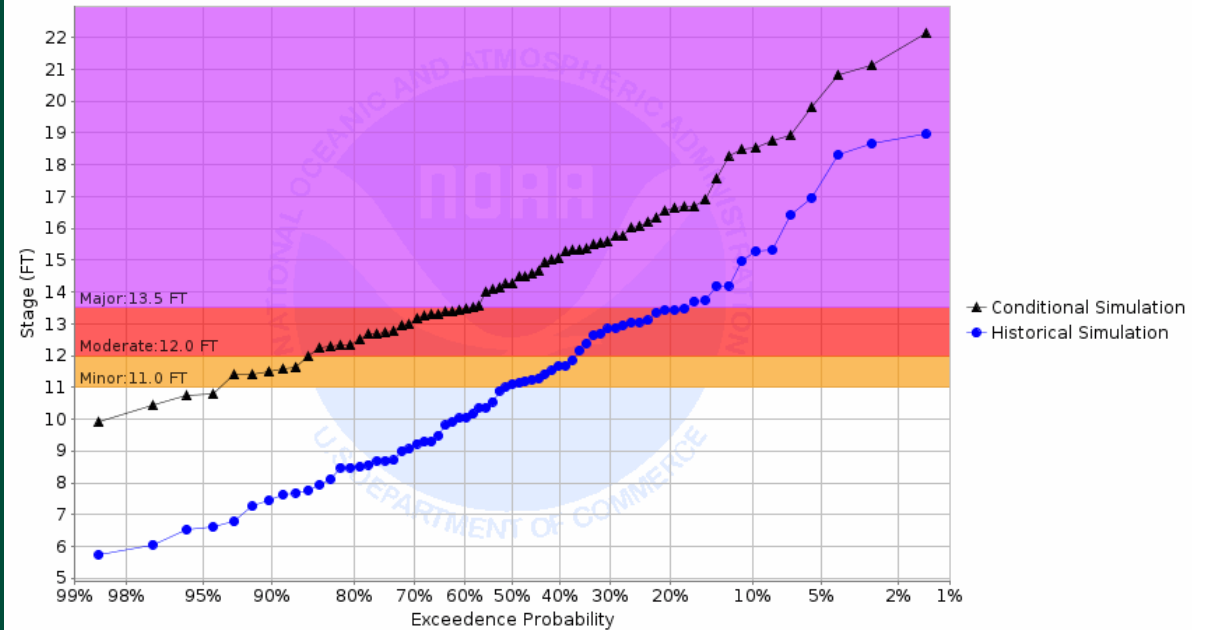
Probability Information

 <sub>CS</sub> = Conditional Simulation

 <sub>HS</sub> = Historical Simulation

Chance of Exceeding River Stage at Mississippi River at Le Claire - L&D 14 (LECI4)  
Forecast for the period 02/27/2023 - 05/28/2023

This is a conditional simulation based on the conditions as of 02/20/2023



About this graph

Forecasts for the Mississippi River at LeClaire are issued routinely year-round.


Stage - Chance of Exceeding Levels During Entire Period

Return to Area Map

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# NWS Flood Forecast



## NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[HOME](#) [FORECAST](#) [PASTWEATHER](#) [SAFETY](#) [INFORMATION](#) [EDUCATION](#) [NEWS](#) [SEARCH](#) [ABOUT](#)

Local forecast by "City, St" or ZIP code


[Location Help](#)

### News Headlines

- [We NEED YOU, Be a Weather Observer! - Join CoCoRaHS!](#)
- [Current Flood Outlook \(Updated February 23, 2023\)](#)
- [Latest CPC Climate Outlooks](#)
- [NWR Station at Petersburg, ND Off Air](#)

### MY FORECAST

Grand Forks ND

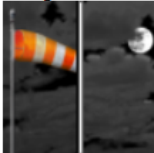


Blowing Snow

# 15°F

-9°C [Get Detailed info](#)

Tonight



Mostly Cloudy and Breezy then Mostly Cloudy

## Current Flood Outlook

[Weather.gov](#) > [Grand Forks, ND](#) > Current Flood Outlook

Grand Forks, ND  
Weather Forecast Office

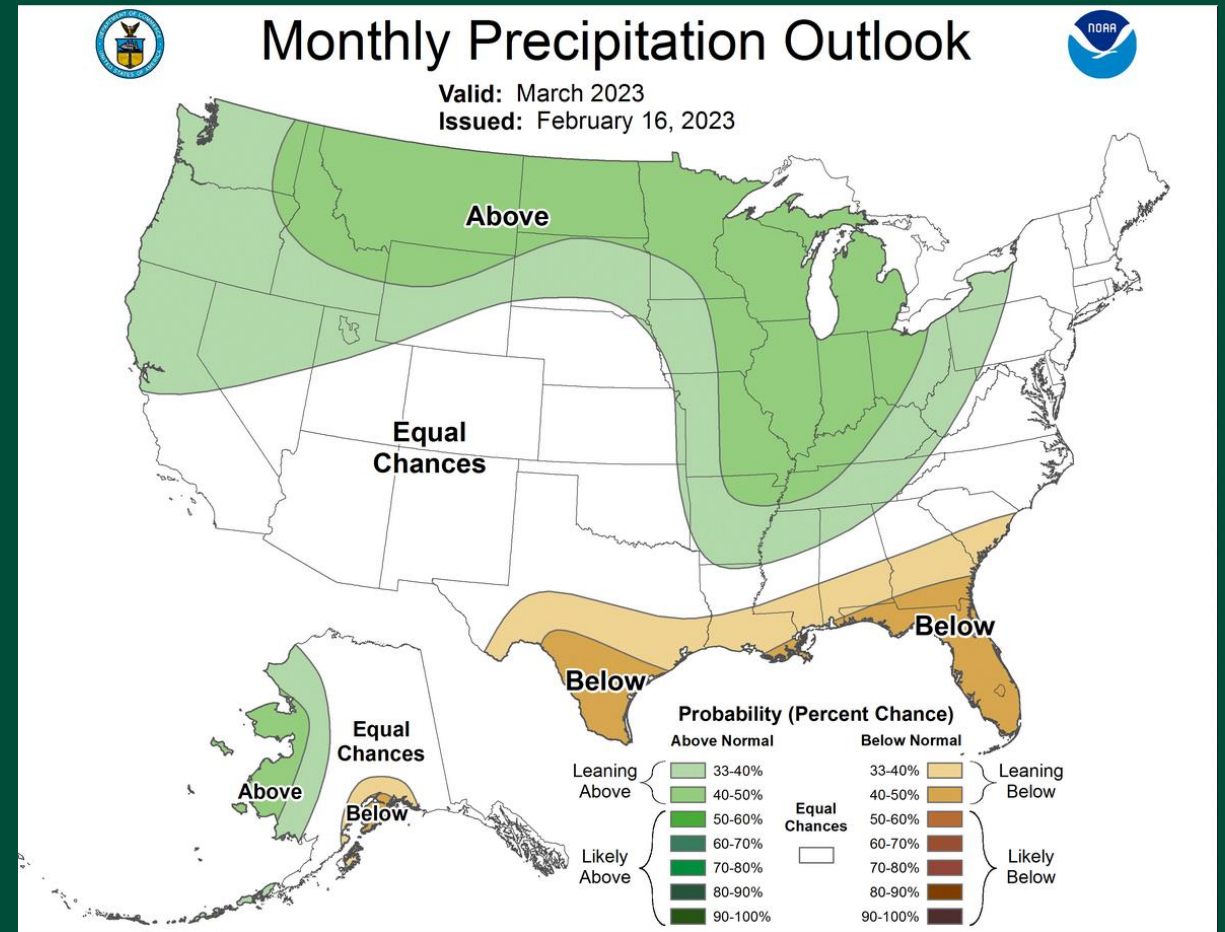
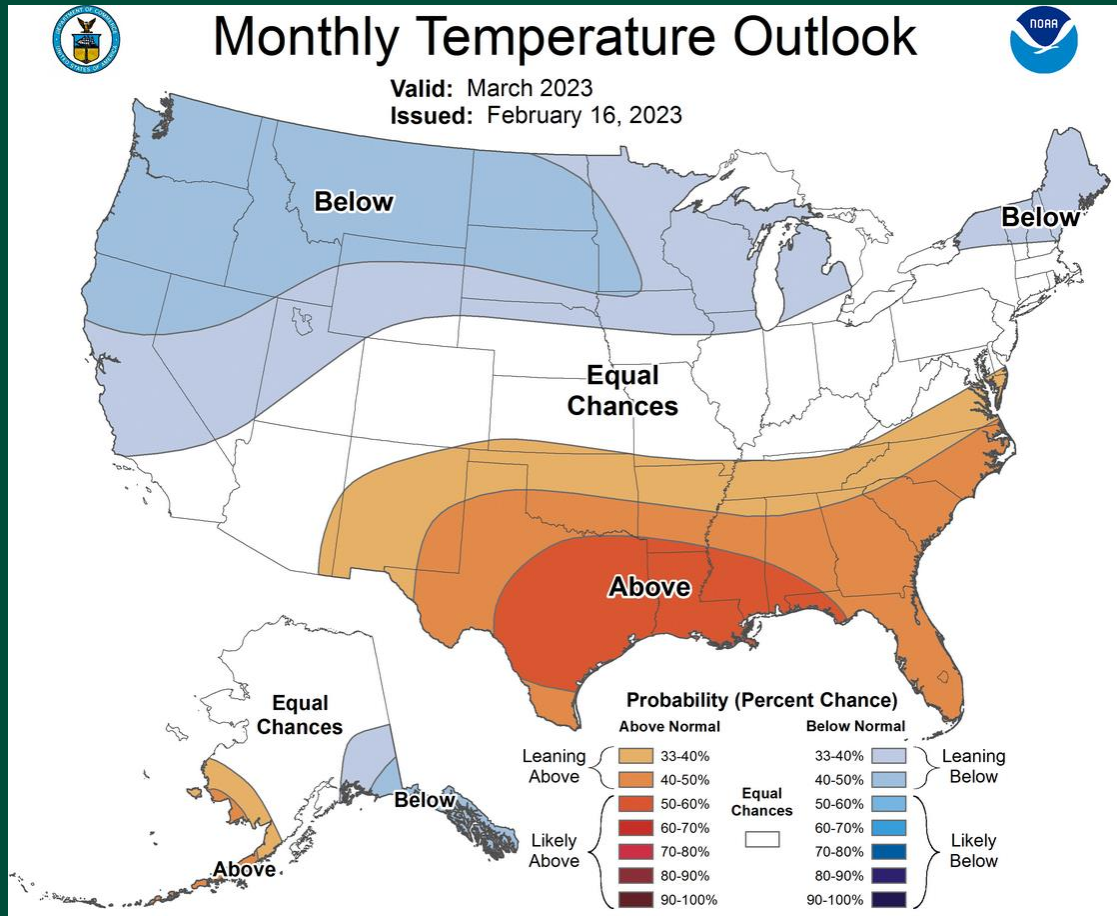
[Current Hazards](#) [Current Conditions](#) [Radar](#) [Forecasts](#) [Rivers and Lakes](#) [Climate and Past Weather](#) [Local Programs](#)

### Spring 2023 Flood Outlooks

Month	Hydrologic Outlook (ESF)	Graphics	Briefing Packet	Webinar
January	<a href="#">Red River Basin (1/26)</a> <a href="#">Devils Lake Basin (1/26)</a>	<a href="#">Red River Basin</a> <a href="#">Devils Lake Basin</a>	<a href="#">Briefing PDF</a>	<a href="#">Slides</a>
February	<a href="#">Red River Basin (2/9)</a> <a href="#">Devils Lake Basin (2/9)</a>  <a href="#">Red River Basin (2/23)</a> <a href="#">Devils Lake Basin (2/23)</a>	<a href="#">Red River Basin</a> <a href="#">Devils Lake Basin</a>  <a href="#">Red River Basin</a> <a href="#">Devils Lake Basin</a>	<a href="#">Briefing PDF</a>  <a href="#">Briefing PDF</a>	<a href="#">Slides</a>  <a href="#">Slides</a>
March	<a href="#">Red River Basin (3/9)</a> <a href="#">Devils Lake Basin (3/9)</a>	<a href="#">Red River Basin</a> <a href="#">Devils Lake Basin</a>	<a href="#">Briefing PDF</a>	<a href="#">Slides</a>



# March Forecast



[https://www.cpc.ncep.noaa.gov/products/predictions/multi\\_season/13\\_seasonal\\_outlooks/color/churchill.php](https://www.cpc.ncep.noaa.gov/products/predictions/multi_season/13_seasonal_outlooks/color/churchill.php)

# Educate

- Encourage local use of NDSU news releases
- Share social media posts
- Develop your own mass and social media from web content
- Use radio





# Snow Melt Management

- Feed
- Cattle Lots
- Roads



# Wet Grain

- Assure grain is dry
- Ponding and water flow



# Piled Snow Water Content

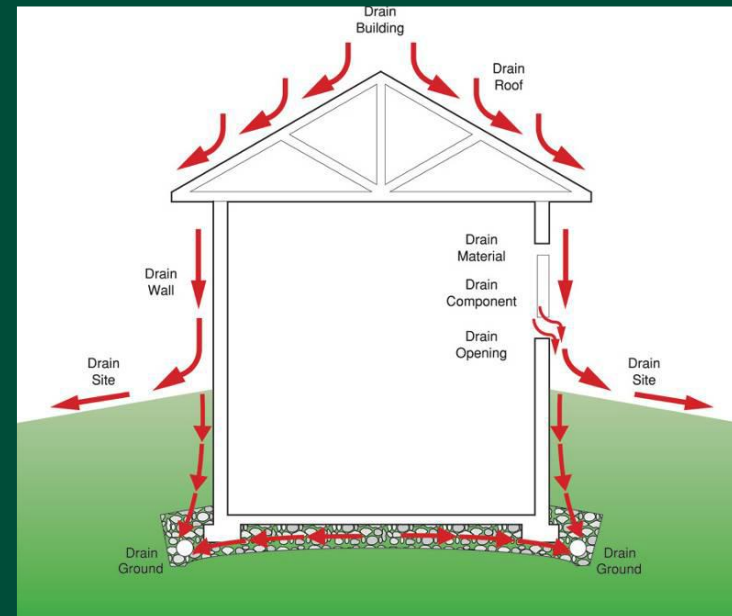
- Almost 3 gallons per cubic foot of piled snow
- About 24 lbs./cubic foot





# Basements

- Drainage
- Water Table
- Sump Pumps



# Steps to Reduce Damage

- Downspouts in place



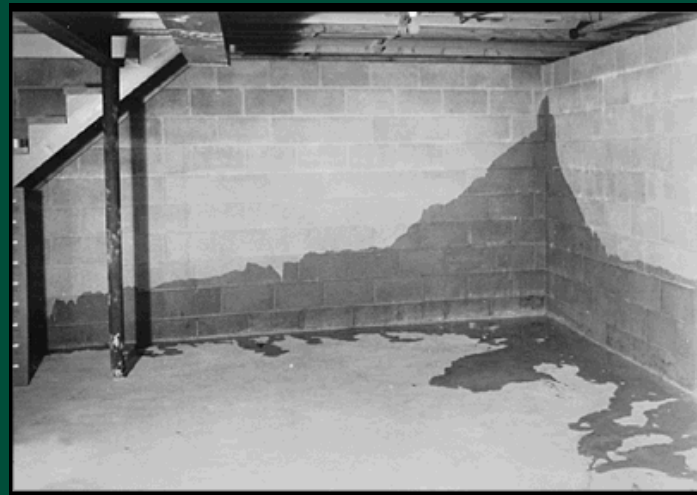
6 inches of compacted snow on  
1,000 sq.ft. roof is about 1,200  
gallons of water



Move snow away from  
the house's foundation

# Saturated Soils

- Moisture moves through concrete into basement in liquid or vapor form.
- Gallons per day
- Mold and physical damage hazard





# Check your sump pump

**Flood Information**

You are here: [Home](#) → [House & Home](#) → [Sump Pump Tips](#)

## Sump Pump Tips

— filed under: [Video](#), [Flood](#), [Before the Flood](#), [Home](#)

NDSU Extension Agriculture Engineer Tom Scherer shares tips on getting your sump pump ready for spring and summer water.

[LEARN MORE: Sump Pump Questions & Answers](#)



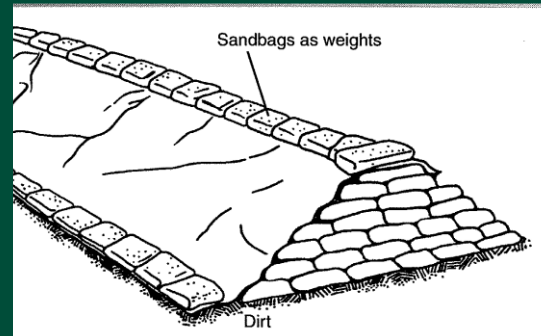
YouTube

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Planning Ahead: Sump Pump Tips  - Downloadable Version (Requires [Quicktime](#)  or [iTunes](#) )

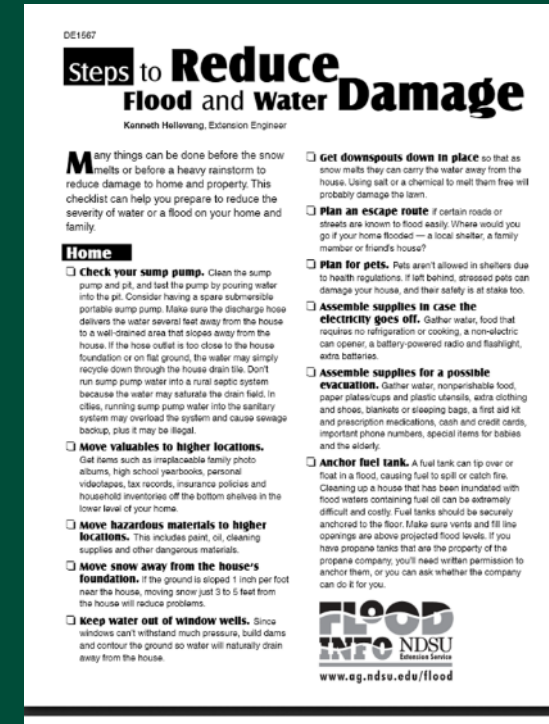
# Flooding Preparation Resources

- Preventing Snow Melt Water Problems
- Sump Pump Tips
- Prepare for Flooding in Rural Areas
- Sandbagging for Flood Protection



# Preparedness Education

- Be proactive
- Promote our resources
- Media & others are looking for resources
- Search “NDSU Extension flood”



# Questions – Comments

