

Pack, Prepare, Be Aware

How to Increase Flood Awareness in Your Community

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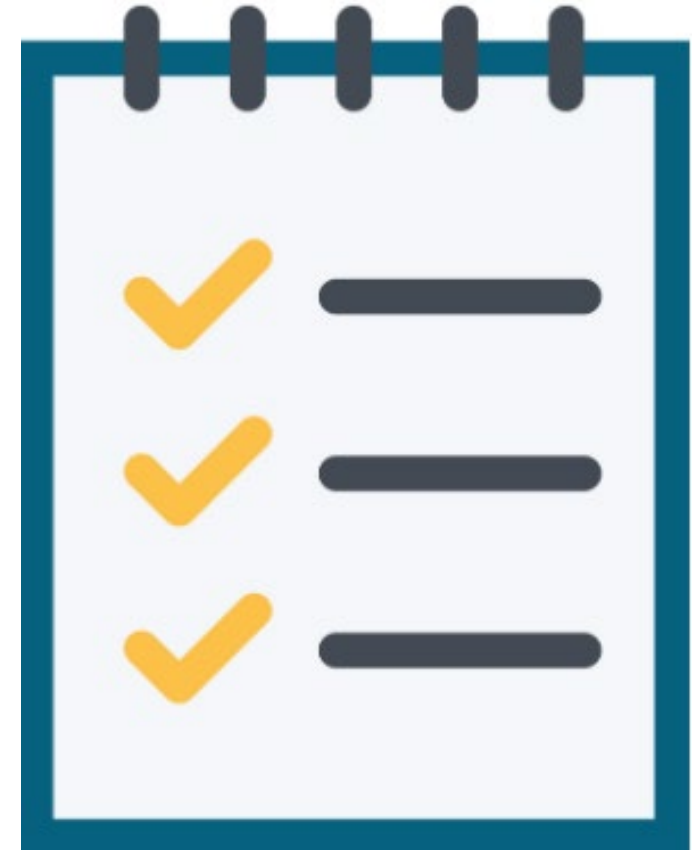
NeDNR Floodplain Management

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Good Life. Great Water.

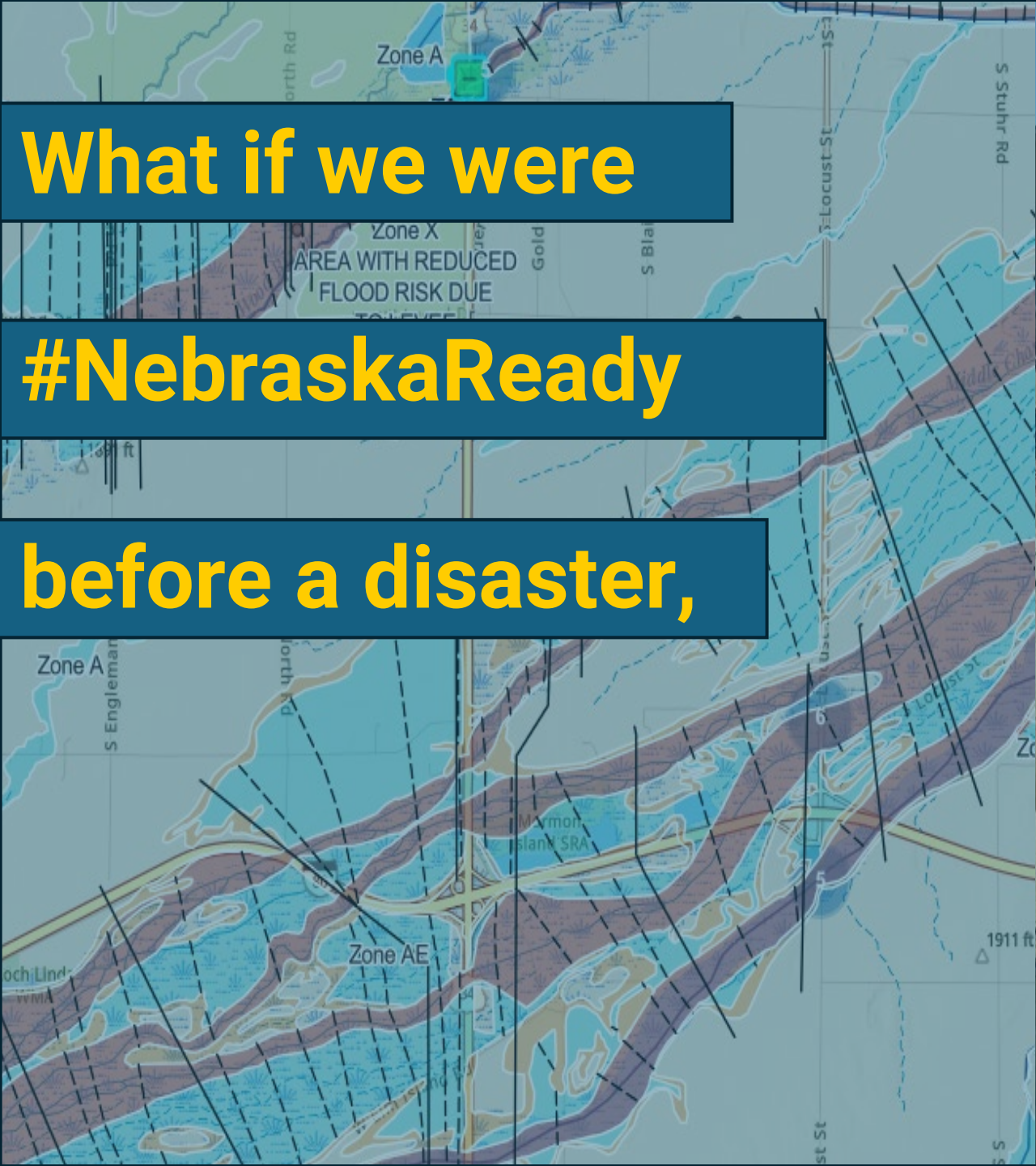
Agenda

- 01 Introduction to Preparedness
- 02 Preparedness Tips
- 03 How to Prepare Your Community for a Flood
- 04 Resources & Strategies
- 05 Key Takeaways



Introduction to Preparedness

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What if we were

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before a disaster,



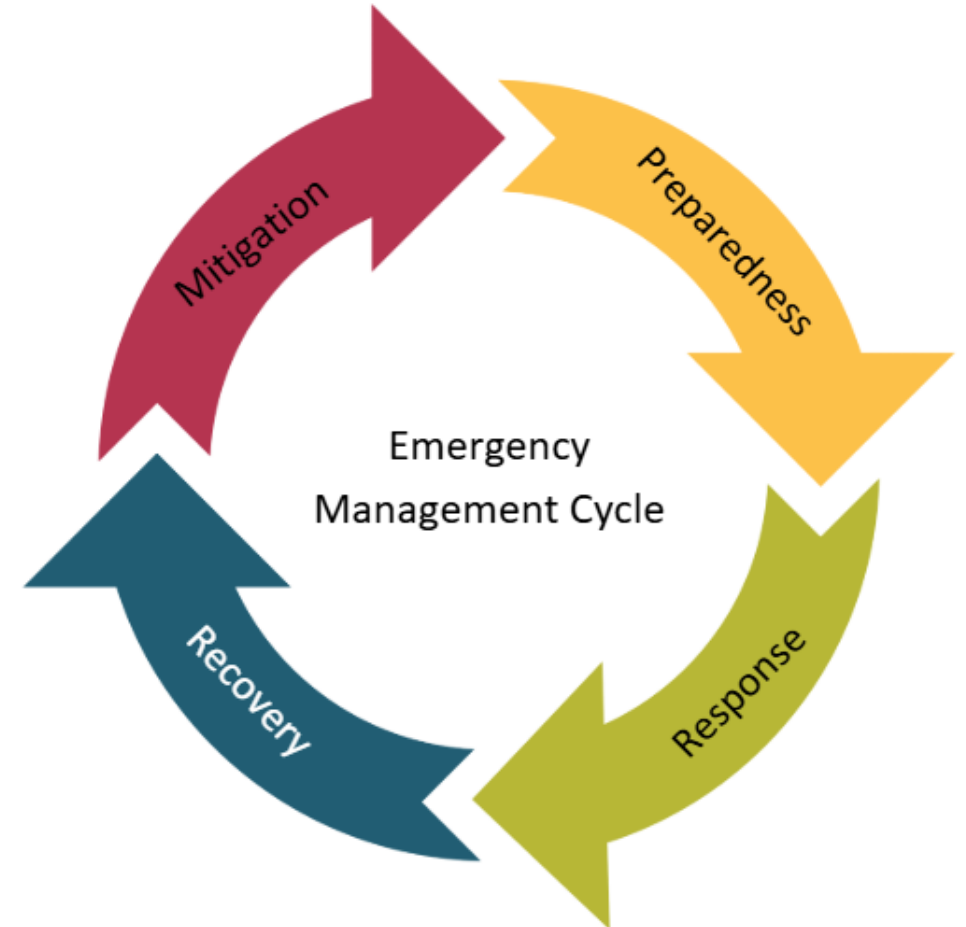
not just

#NebraskaStrong

afterward?

Preparedness

- One piece of the Emergency Management Cycle
- Preparedness and planning is continual



Preparedness

- FEMA defines preparedness as:
“actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to:
 - Prevent,
 - Protect against,
 - Mitigate the effects of,
 - Respond to, and
 - Recover from those threats that pose the greatest risk.”



Why Preparedness is Important

- Save lives
- Improve response and recovery efficiency
 - Permitting repairs
 - Substantial damage assessments
- Property owners are aware of potential impacts and understand required steps during the recovery process.
- Reduces fear and anxiety around emergencies and disasters



An aerial photograph of a town, likely in Nebraska, showing extensive flooding. The water has inundated the streets and surrounding areas, leaving only the roofs of buildings and some trees visible. A prominent road or railway line runs diagonally from the bottom right towards the top right. The entire image is covered with a semi-transparent blue filter.

Preparedness Tips

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Know Your Hazards



NATURAL HAZARDS



HUMAN HAZARDS



TECHNOLOGICAL
HAZARDS

Know Your Flood Hazards

- What are your flood sources
- What areas are commonly affected by flooding
- How many and what type structures are in your flood risk area
- Who makes up the affected population
- Historic flood data



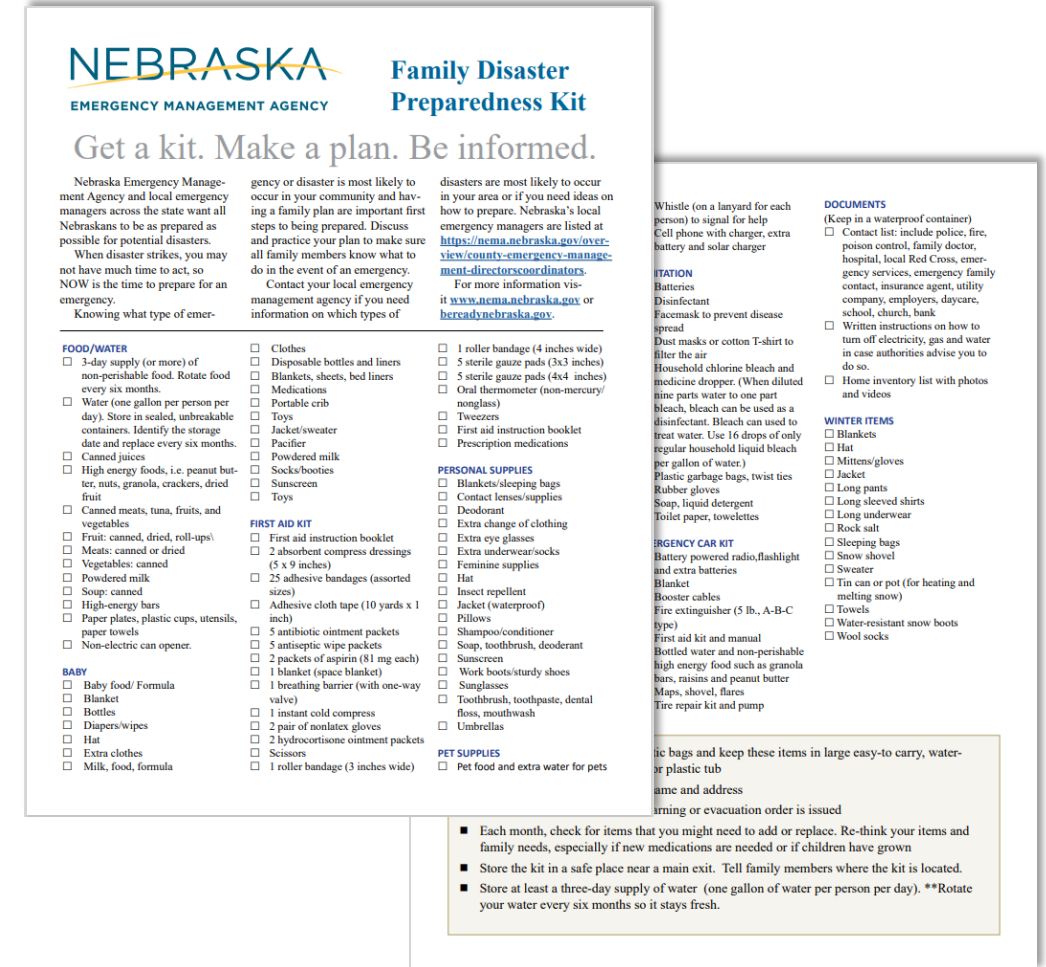
Personal Preparedness

- Create a plan
 - Meeting location
 - Uncompromised evacuation routes
 - Shelter location
 - How to receive emergency alerts and warnings
- Consider household specific needs
 - Non-native English speakers
 - Pets or service animals
 - School-aged children
 - Disabilities



Personal Preparedness

- Create an Emergency Kit
 - Flashlights
 - Canned food/non-perishables
 - Manual can opener
 - Bottled water
 - Battery operated radio
 - Extra batteries
 - Walkie-Talkies
 - Fully charged portable chargers
 - Medications
 - Important documents
 - Birth certificates, social security cards, titles/deeds to homes/cars, etc.



Community Preparedness

- Conduct a Risk Assessment
 - Identify potential hazards
 - Learn where and how to improve
- Ensure resources are publicly available
 - Emergency services numbers
 - Emergency manager and personnel
 - Local regulations
 - Hazardous zones map
 - Special Flood Hazard Area (SFHA) / Floodplain Maps, etc.
 - Critical infrastructure locations

COUNTY EMERGENCY MANAGEMENT DIRECTORY

Filter Table

Search... Select Filter

[Export to Excel](#)

| County And/Or Jurisdiction | Name/Position | Address | Phone | Email |
|--|------------------------------------|--|--------------|--|
| ADAMS PET Region: South Central | Ron Pughes - Emergency Manager | 2965 S. Baltimore Hastings, NE 68901 | 402-461-2361 | rpughes@acema.org |
| ANTELOPE, MADISON, PIERCE PET Region: Northeast | Bobbi Risor - Emergency Manager | 701 Koenigstein Ave. Norfolk, NE 68701 | 402-844-2050 | brisor@norfolkne.gov |
| ARTHUR PET Region: North Central | Calvin Turner - Emergency Manager | 205 Fir St. Arthur, NE 69121 | 308-785-7911 | sheriff@arthurcountyne.gov |
| BANNER, SCOTTS BLUFF EM Region: Region 22 | Rob Crowder - Regional Coordinator | 1825 10th St. Gering, NE 69341 | 308-436-6689 | rob.crowder@scottsbuffcountyne.gov |

Community Preparedness

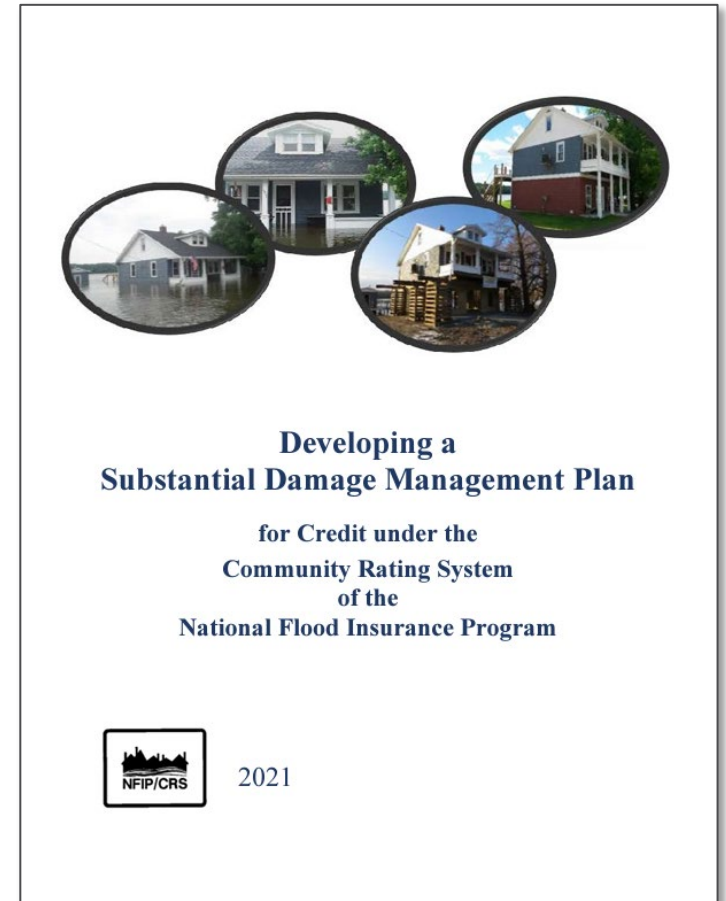
- Know your vulnerable populations
 - Those with mental and/or physical disabilities or limited mobility
 - Non-native English speakers
 - Low-income individuals/households
 - Single-parent households
 - Children
 - Elderly
 - Those without access or limited access to resources
 - Transportation, internet, cell phones, etc.

Community Preparedness

- Participate in local or multi-jurisdictional Hazard Mitigation Plans or Substantial Damage Plans
 - Identifies and prioritizes hazards likely to affect your community
 - Outlines plan and funding sources to prepare for and mitigate the hazard
- Resources:
 - [2021 State Hazard Mitigation Plan](#)
 - [2022 State Flood Hazard Mitigation Plan](#)

Creating a Substantial Damage Management Plan

- The Substantial Damage Management Plan allows communities to think about these actions before a disaster
- Can be updated as part of your community's Emergency Action Plan and/or Hazard Mitigation Planning
- Template is available from https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf
- Communities not in CRS don't need to follow each step exactly in order




Creating a Substantial Damage Management Plan

- The best way to fight misinformation during a disaster is to have a clear, transparent planning process before one occurs
- This plan allows you to:
 - Identify at-risk structures
 - Develop outreach strategies to the public
 - Garner support from community leadership
 - Have mitigation projects ready if/when your community receives disaster funding
 - Be prepared



Community Preparedness

- Emergency Shelters
 - Pre-arranged locations to house displaced individuals from hazard
 - Back-up generators for critical facilities
 - Fire stations
 - Police stations
 - Hospitals
 - Elderly care facilities
 - Mutual Aid Agreements & Compacts with neighboring communities
 - Work with your local or county Emergency Manager
- 

Community Preparedness

- Be aware of the Voluntary Organizations Active in Disaster (VOADs) and other non-profits and Non-governmental organizations (NGOs)
 - Approximately 1.5 million NGOs operate in the United States

Key Activities:

- Emergency Assistance
- Medial Aid
- Food/water distribution
- Shelter/infrastructure support
- Collaboration with local partners, governments etc.



A photograph of a flooded residential street in Nebraska. The water is murky and reflects the sky. A dirt road runs along the left side of the frame. In the background, there are houses, trees, and utility poles. The entire image has a blue tint.

How to Prepare your Community for a Flood

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Flood Preparedness

- Know which types of flooding are likely to affect your community
 - Flash floods
 - Riverine flooding
 - Ice jams
 - Dam/levee failures
 - Shallow sheet flooding
 - Ponding



Flood Preparedness

- Proper flood preparation starts with an ample floodplain management program
 - Mitigate the risk of flood damage before the flooding occurs
 - Elevate or floodproof structures
 - Discourage development in high-risk areas



Flood Preparedness

- Encourage the purchase and maintenance of flood insurance, even for those not in the SFHA or those without a mortgage/loan.



Flood Preparedness

- Ensure your community members are aware of permitting requirements in the SFHA

| Floodplain Development Permit Application | | | |
|---|--|---|--|
| <div>Place Jurisdiction Seal</div> | | FOR OFFICIAL USE ONLY | |
| | | Jurisdiction: | |
| | | Permit No.: | Date Filed: |
| | | Fee: | Receipt No.: |
| | | Approved? <input type="checkbox"/> Y <input type="checkbox"/> N | Date Decided: |
| Notes: | | | |
| OWNER | | STRUCTURE | APPLICANT <small>If different than owner.</small> |
| Owner Name: | | Structure Address: | Applicant Name: |
| Address: | | | Address: |
| City, State, Zip: | | City, State, Zip: | City, State, Zip: |
| Phone: | | Parcel No: | Phone: |
| Email: | | Lot & Block Subd. / PLSS (S-T-R): | Email: |
| | | | License No: |
| PROJECT INFORMATION | | | |
| Project Type: <small>Check all that apply</small> | | | |
| <input type="checkbox"/> Residential <input type="checkbox"/> Commercial / Non-Residential <input type="checkbox"/> Fences / Walls | | | |
| <input type="checkbox"/> New Construction - Detached <input type="checkbox"/> New Construction - Attached <input type="checkbox"/> Remodel / Rehab | | | |
| <input type="checkbox"/> Grading / Fill / Excavation <input type="checkbox"/> Mobile Home | | | |
| <input type="checkbox"/> Other: | | | |
| Description of proposed Work: | | | |
| Cost of Improvements for this project: (a) | | | |
| <small>Attach an itemized cost estimate; See FEMA's "Included and Excluded Costs for Damage Repair Estimates".</small> | | | |
| Appraised Valuation of the Structure: (b) | | | |
| <small>Attach assessment documents.</small> | | | |
| Calculate the following: (a) ÷ (b) x 100 = (c) % | | | |
| Is the project a substantial improvement? <input type="checkbox"/> Y <input type="checkbox"/> N | | | |
| <small>If (c) value is greater than or equal to 50%, then the project constitutes substantial improvement.</small> | | | |
| FLOODPLAIN INFORMATION | | | |
| FEMA Flood Zone: <input type="checkbox"/> A <input type="checkbox"/> AE <input checked="" type="checkbox"/> X (shaded) <input type="checkbox"/> Other | | | |
| Base Flood Elevation: NGVD(29) / NAVD(88) | | | |
| Required Flood Protection Elevation: NGVD(29) / NAVD(88) | | | |
| Is the property within the Floodway? <input type="checkbox"/> Y* <input type="checkbox"/> N | | | |
| <small>*If any work is proposed within the Floodway, a no-rise certification must be attached.</small> | | | |

Appendices | 95

Flood Preparedness

- Know which structures are subject to Substantial Damage
 - Create a database in the FEMA SDE 3.0 Tool
 - Create a team to conduct inspections
 - Practice doing assessments
 - Attend NeDNR trainings



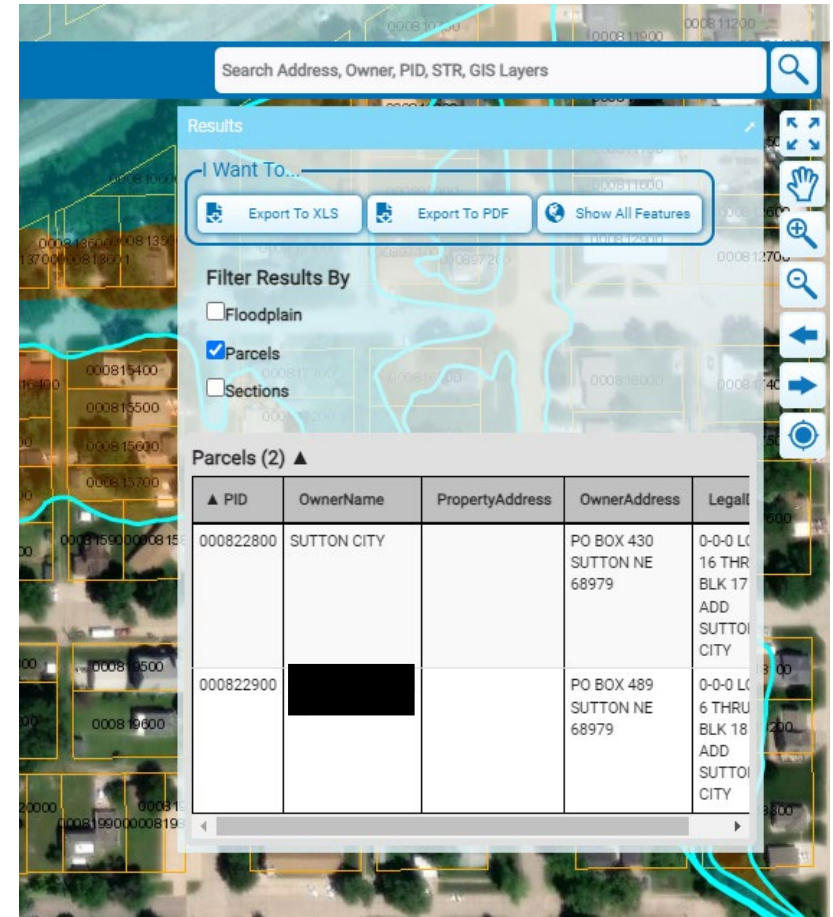
Identifying Floodplain Structures

- Before a disaster, take time to identify existing structures in the floodplain
- Create an inventory or database of structures in the floodplain
- Use this list to determine:
 - How long the SD process may take
 - How many staff or volunteers are needed
 - What compliance actions would need to take place if the structure is SD?



Identifying Floodplain Structures

- We recommend using your county assessor's G-works (or similar) website
 - Users can pull a list of properties into an excel sheet
 - Assessor's office may be able to help
 - Works best if your GIS page has a floodplain layer
 - Downloadable floodplain layers can be found on FEMA's Map Service Center



Flood Preparedness

- If your community has flood protection measures that need human intervention to install – practice installation on a regular schedule to ensure smooth operation!
 - Know who is responsible to install the protection as well



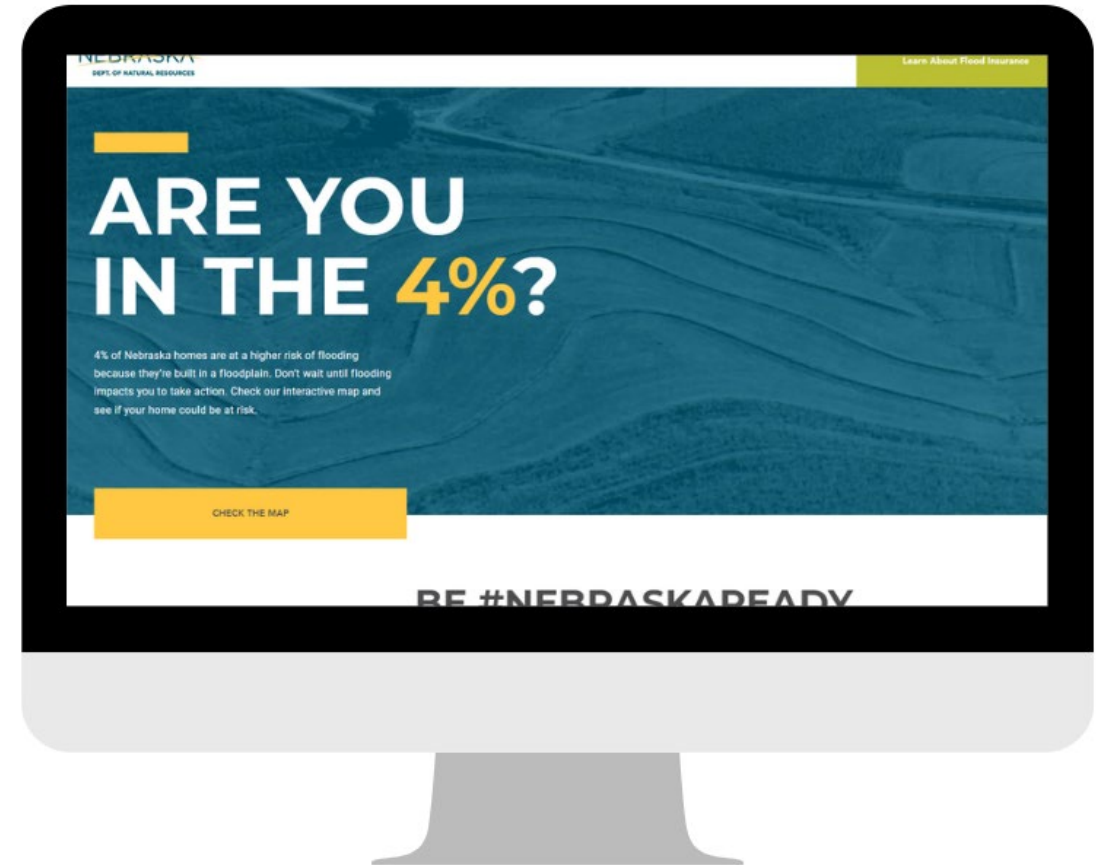
Flood Preparedness

- Inform community members of the likely flood hazards and provide best practices to stay safe before, during, and after a flood
 - Avoid driving in floodwaters, **turn around don't drown**
 - Use caution when entering flooded homes, hidden damage may be present
- Conduct regular outreach campaigns
 - Severe Weather Awareness Week

Resources & Strategies

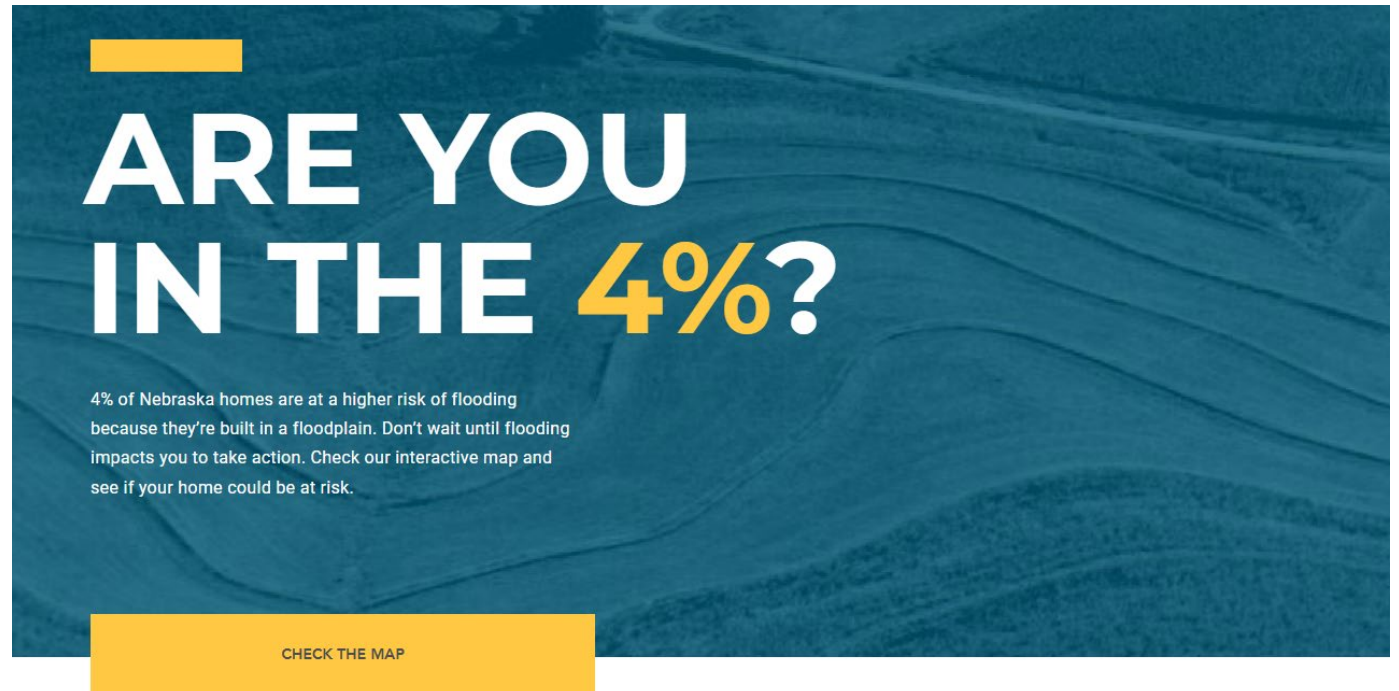
Online Resources

- <https://www.nebraskaready.com/>
- <https://www.ready.gov/>
- <http://ne.gov/go/floodriskmap>
- <https://nerff.nebraska.gov/>
- <https://www.floodsmart.gov/>
- <https://nema.nebraska.gov/disaster-preparation.php>



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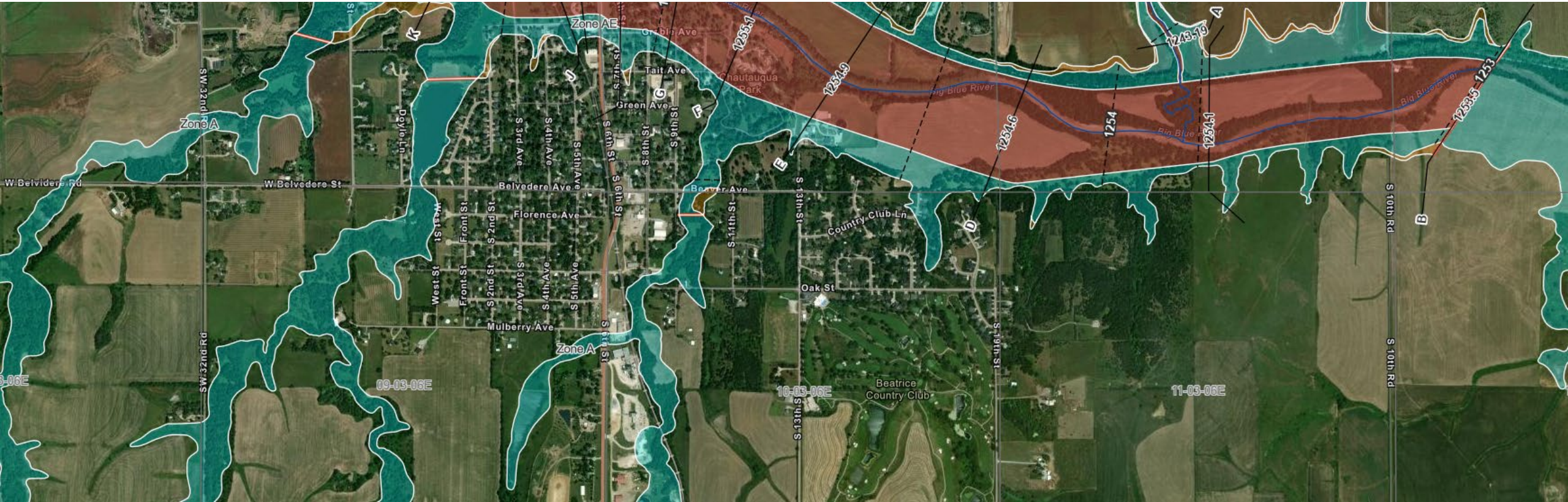
- Flood preparedness campaign from NeDNR
 1. Pack
 2. Prepare
 3. Be Aware



HOW TO FIND OUT IF YOU'RE IN THE 4%

Explore our interactive map to find out if your home is located in a floodplain. Click the link below, then input your address in the top left. Then, use the icons to the left of the address box to toggle map layers on and off. Consult our [map guidance page](#) or [contact Floodplain Management](#) for help interpreting your results.

CHECK THE MAIN



#NebraskaReady FAQs

- What you can do if your property is in a floodplain
- Where you can purchase flood insurance
- When flood insurance is mandatory
- How you can help your community in the event of a flood

FREQUENTLY ASKED QUESTIONS

What is a floodplain?

A floodplain is a low-lying area next to a river, lake, or other body of water, which may flood during extreme weather events or high water periods. [FEMA](#) defines regulatory floodplains as the 1% Annual Chance Floodplain or the 100-year Floodplain.

What is a floodway?

A floodway is a natural path for floodwaters to flow through, helping to prevent water from spreading too much into the surrounding areas. Building in a floodway is usually restricted because it's the most dangerous area during a flood.

Is my property in a floodplain?

Visit NeDNR's [Floodplain Interactive Map](#) to locate your property and its proximity to a floodplain. If your community participates in the [National Flood Insurance Program](#) (NFIP), you may also contact your local [floodplain administrator](#). Please note that floodplains can change over time, so check updated flood maps regularly to see if your property is at risk.

My house is in the floodway, what can I do?

If your house is in a floodway and is substantially damaged or if you plan significant improvements, the entire property must comply with your local floodplain ordinance. Rebuilding on the current site may not be allowed. [Contact Floodplain Management](#) for additional resources and information.

What items should I include in my emergency kit?

While this list is not exhaustive, in general, your emergency kit should contain the following: emergency cash (around \$200), a first aid kit, a power bank and charging cable for your phone, canned food and a can opener, bottled water, extra clothing, rubber boots and gloves, NOAA Weather Radio, a battery-operated radio, a whistle (to signal for help),

Flood Terms

- Difference between floodplain and floodway
- The 100-Year Flood
- The 1% Annual Chance
- Flood Insurance



Floodplain vs. Floodway

A floodplain is an area around a river or stream that is prone to flooding. It's generally the flat land that water can spread across when a river overflows. There are certain elevation restrictions to consider when building in a floodplain. These rules are in place to reduce flood risk and protect both people and property.

A floodway is a part of the floodplain that's meant to carry the deepest, fastest-moving water during a flood. It's a natural path for floodwaters to flow through, helping to prevent water from spreading too much into the surrounding areas. Building in a floodway is usually restricted because it's the most dangerous area during a flood.

The 100-Year Flood

The term "100-year flood" refers to a flood event that has a 1% chance of occurring in any given year. It's a statistical way of describing the likelihood of a flood, not a guarantee that such a flood will only happen once every 100 years. A common misunderstanding is that if you've experienced a 100-year flood, you're "safe" for the next 99 years. In reality, multiple 100-year floods can occur within a short period, because each year has that same 1% chance. The term simply reflects the risk level, not a time interval.



The 1% Annual Chance

On a flood map, the term "1% annual chance" typically appears in areas designated as the "100-year floodplain." This means there is a 1% chance of flooding in any given year. If your home is in the 1% Annual Chance Floodplain, your property has at least a 26% chance of being flooded during the course of a 30-year mortgage. The actual risk due to flooding varies depending on your location within the floodplain.

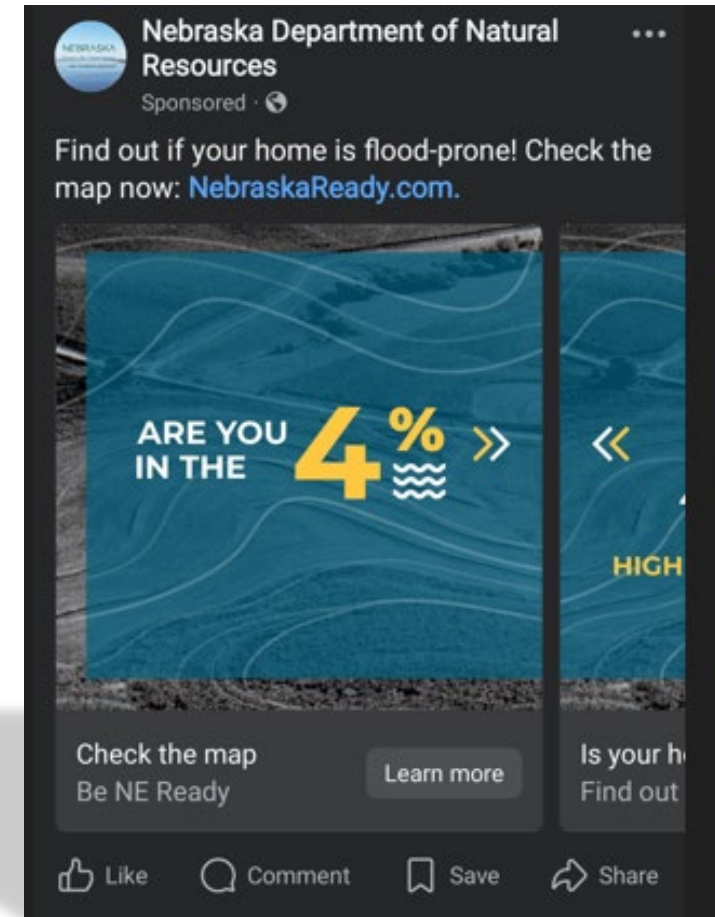
Flood Insurance

People often assume their home insurance covers flooding. However, most policies require a separate flood policy. Flooding can happen anywhere. Flood insurance gives you peace of mind, knowing you're protected if the unexpected happens. Plus, it's often



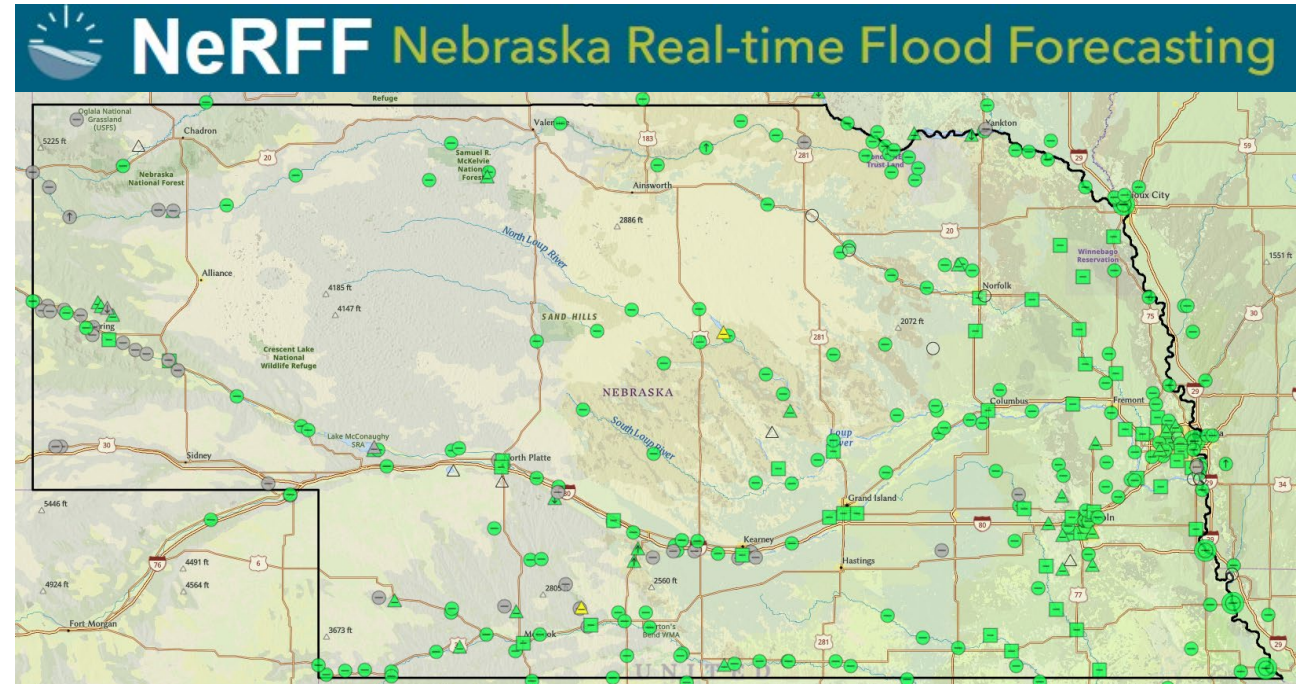
#NebraskaReady Campaign

- Advertisements on social media, search engines, and real estate websites directing them to nebraskaready.com



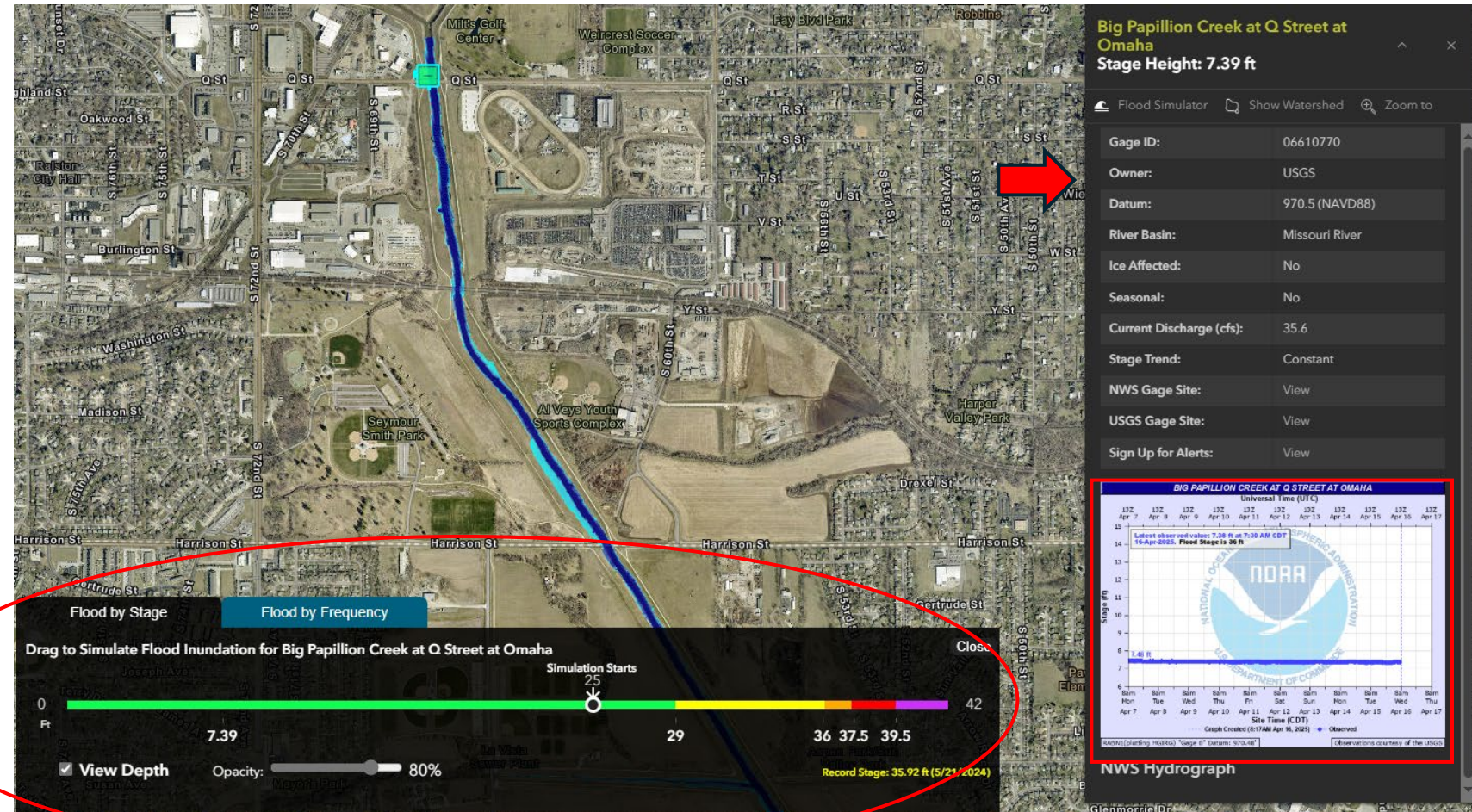
Nebraska Real-Time Flood Forecasting (NeRFF)

- Online flood inundation tool
 - Can show potential flood boundaries based on stream gauge height or recurrence interval (1% annual chance, 0.2% annual chance, etc.)

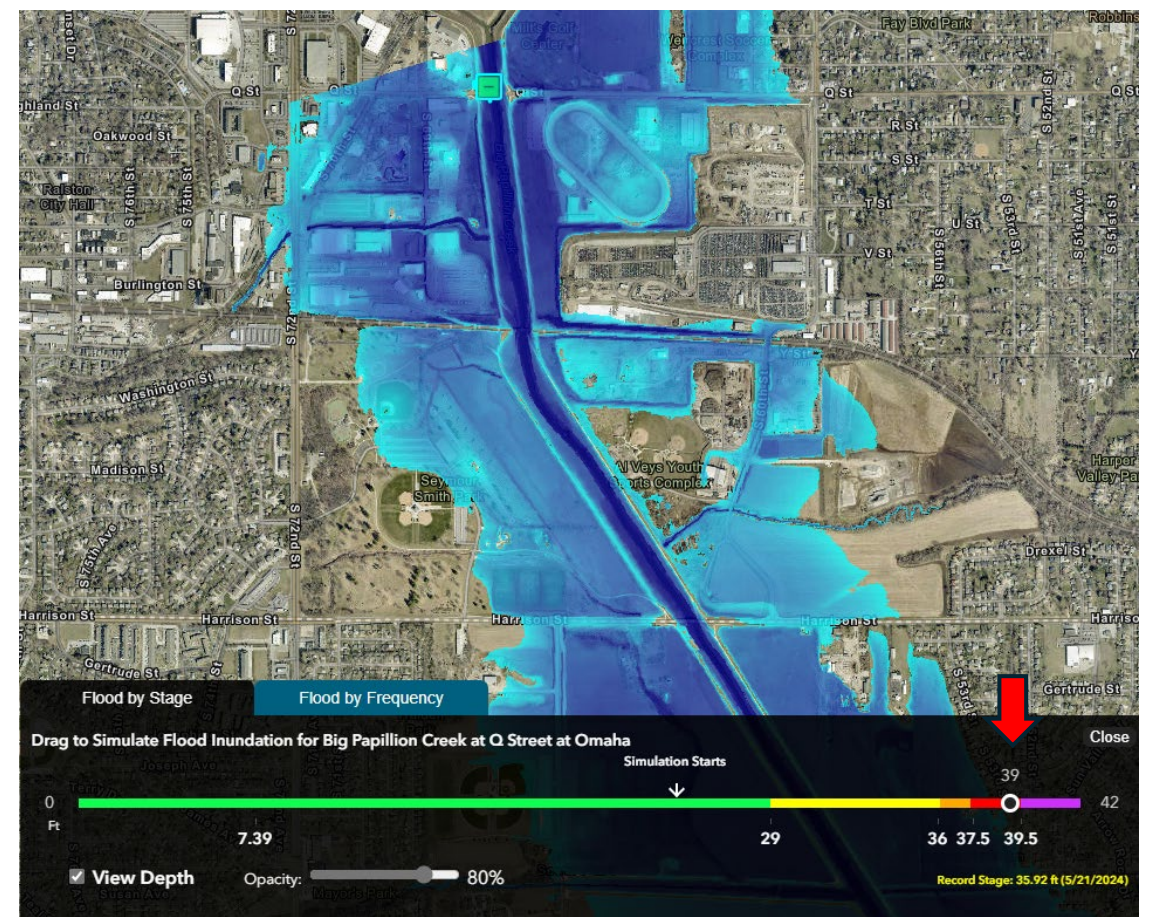
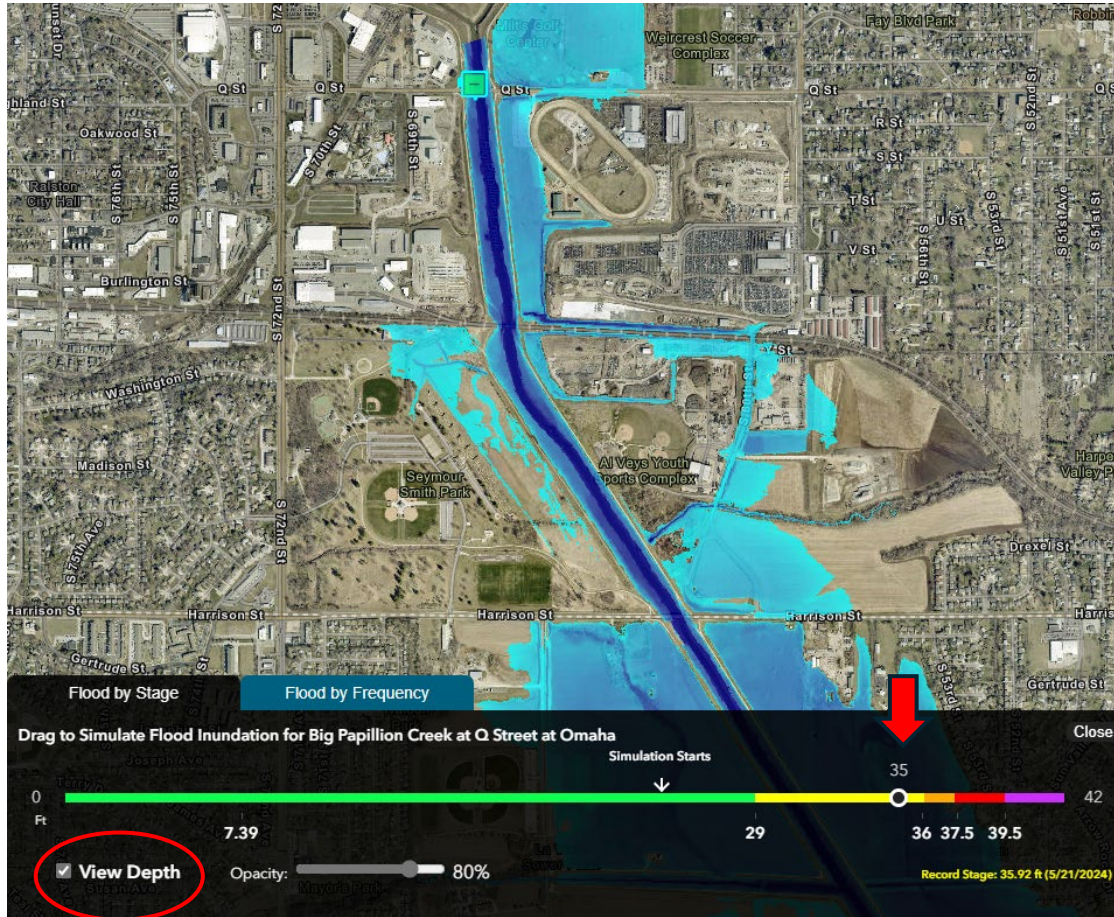


NeRFF Features

- Stream gauge shows real time data
- National Weather Service Hydrograph
- Flood Simulation

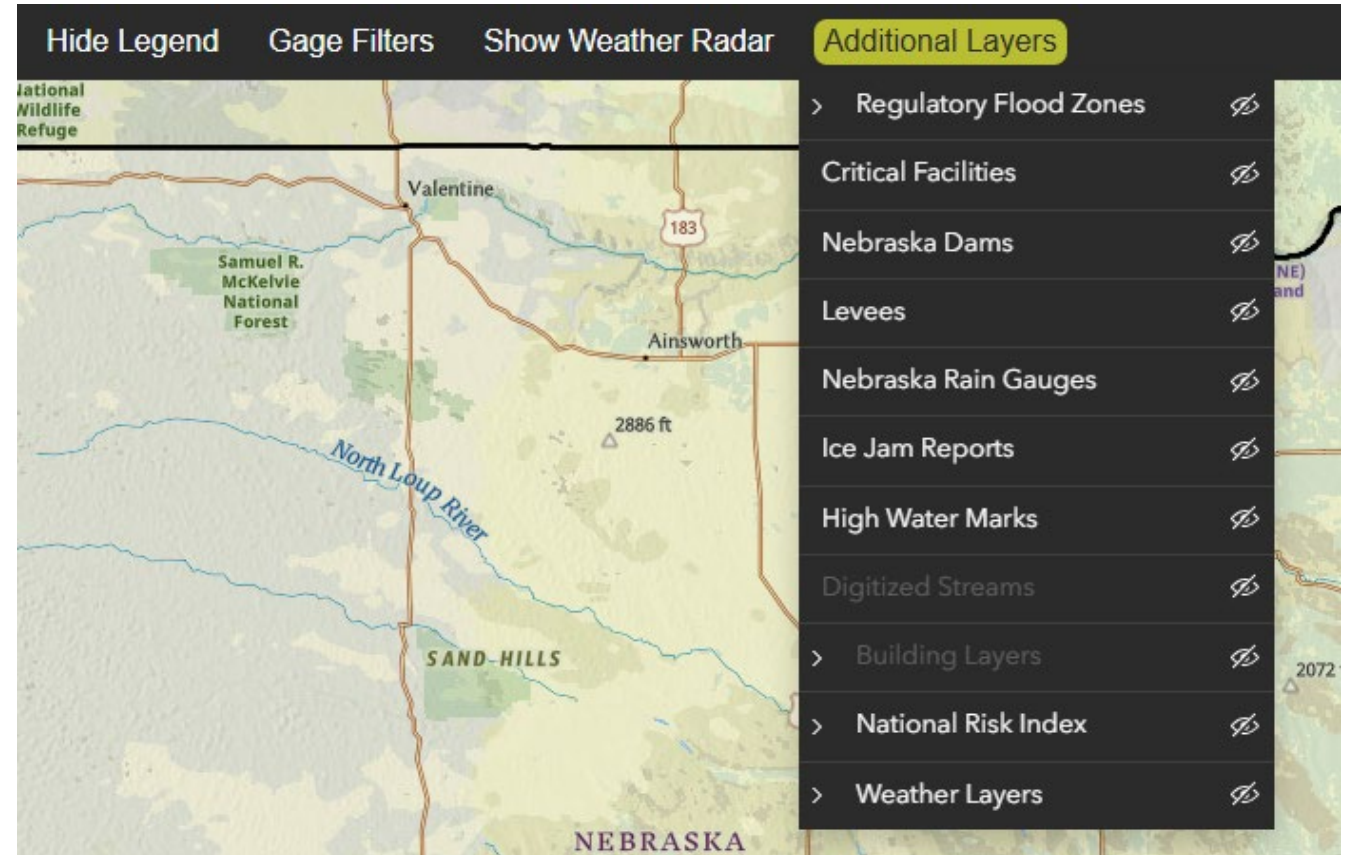


NeRFF Flood Simulator



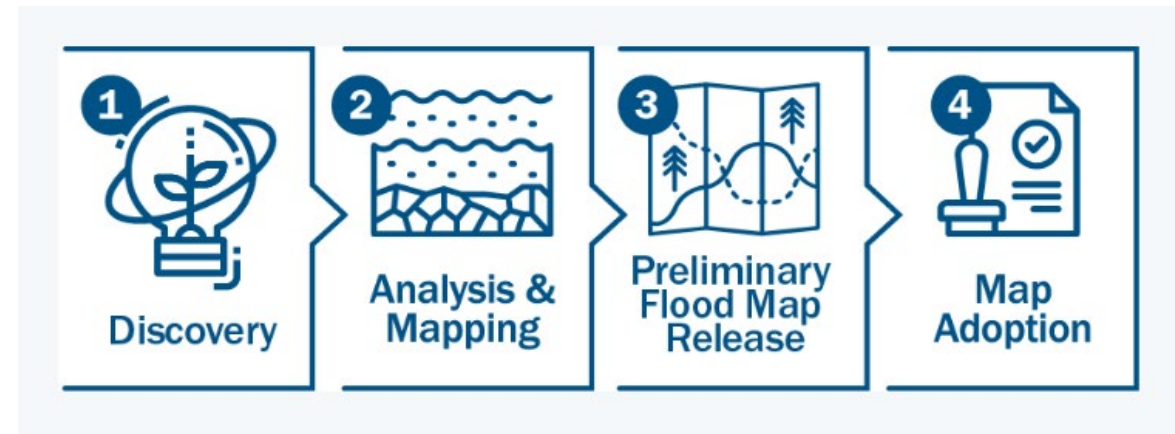
NeRFF Additional Features

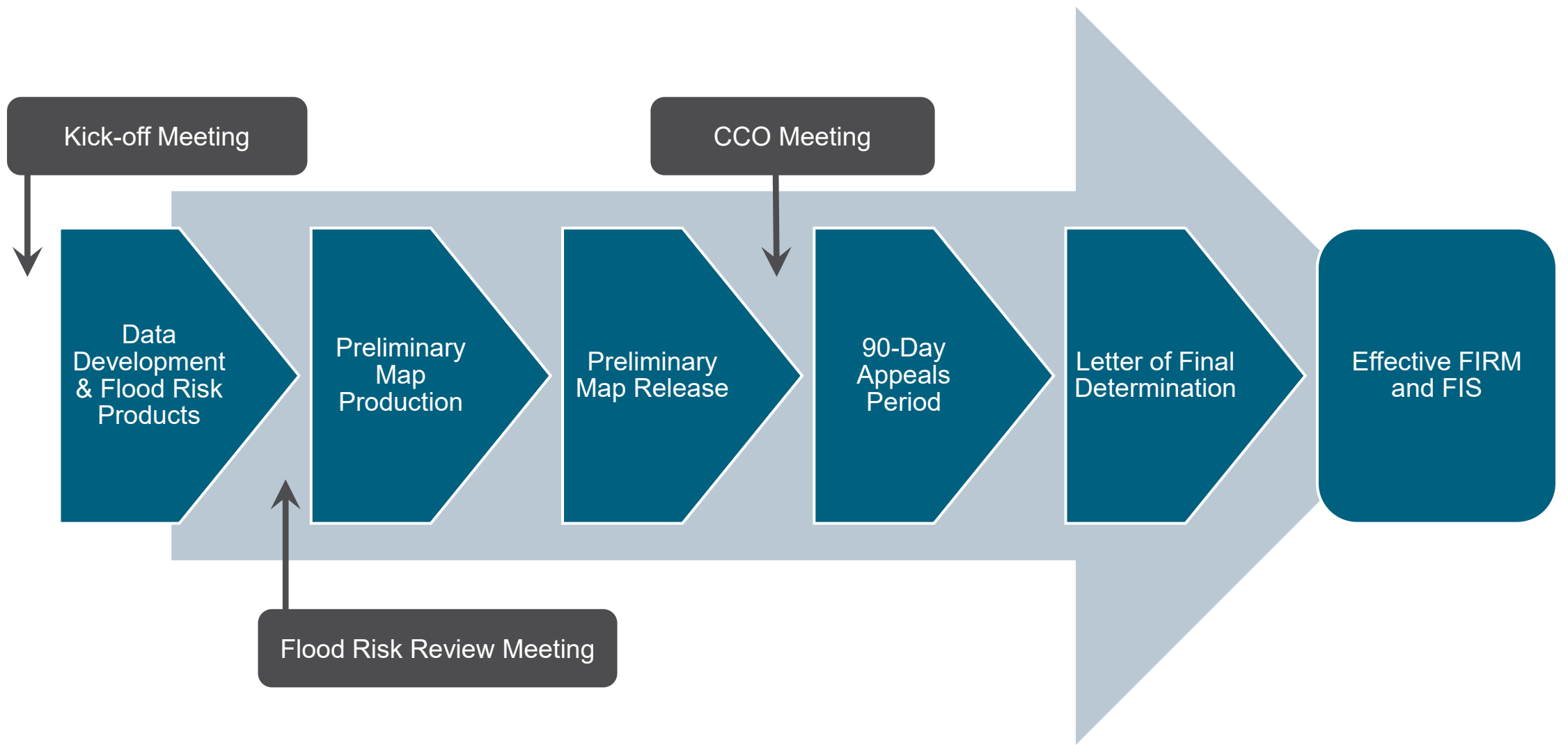
- Stream gage filters
- Weather radar
- Flood zones
- Critical facilities
- Dams and Levees
- Ice jam reports
- Building layers
- National risk index



Risk MAP Outreach

- FEMA Risk Mapping, Assessment, and Planning
 - NeDNR & FEMA working to create new outreach materials to community's receiving new Flood Insurance Rate Maps
 - Postcards sent to community members inviting them to Public Open House meetings
 - Information shared on social media accounts
 - Community involvement is key

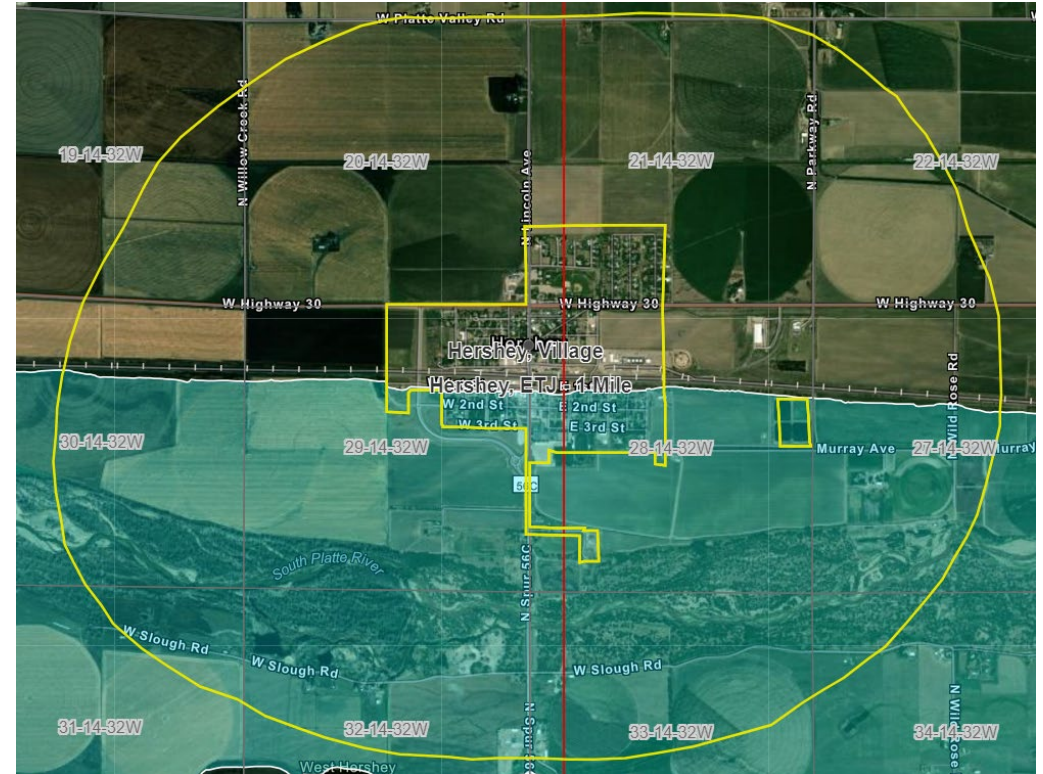




Risk Map Timeline

Community's Role – Project Kickoff

- Provide NeDNR with information to help make the maps
 - Corporate boundaries/ETJs
 - Existing Hydrologic/Hydraulic Studies
 - High-water marks or historical storm data
- Begin general outreach to the public
 - Provide the floodplain administrator's contact information
 - Host a local community meeting
 - Ensure floodplain maps are accessible



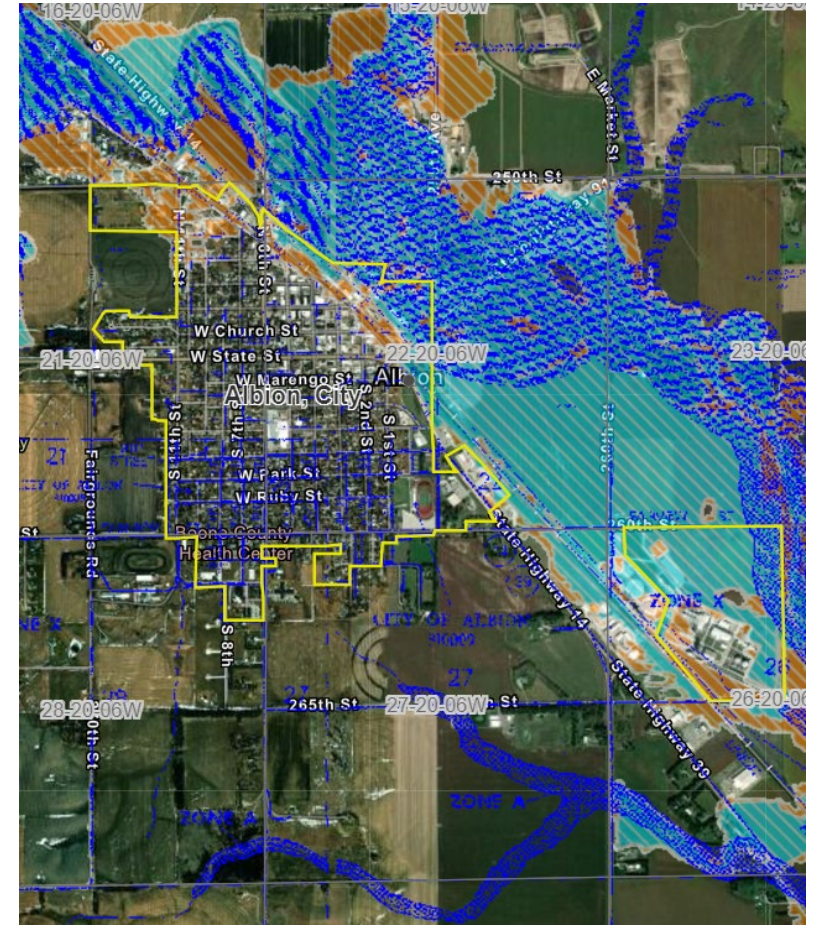
Community's Role – Data Development

- Engage community leadership
- Continue conversations with property owners as data becomes available
- Coordinate additional information with NeDNR
 - Because there are no draft maps, data and floodplain boundaries can still be adjusted



Community's Role – Flood Risk Review

- A meeting with community officials and stakeholders where draft work maps are presented
- Community officials can continue to provide comments on the draft work maps using the NeDNR Interactive Map
- NeDNR will coordinate with communities to invite as many attendees as possible to Public Open Houses
 - Help us get people there!

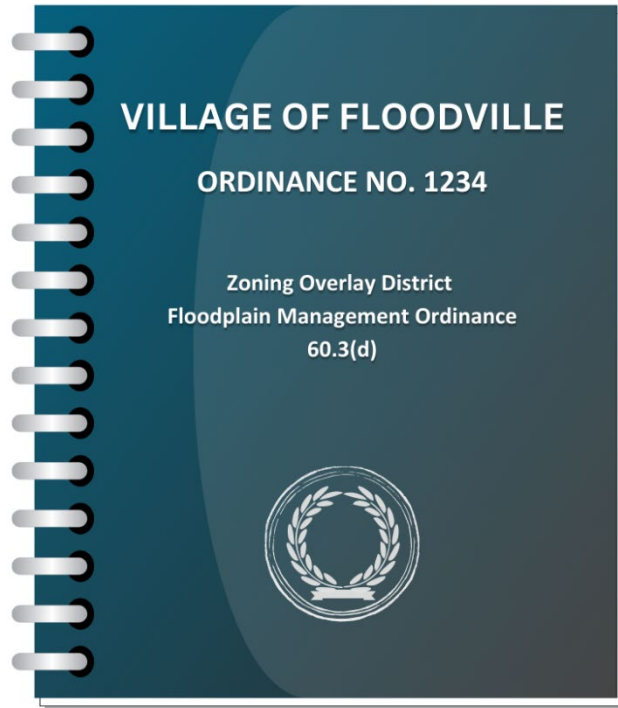


Community's Role – Preliminary Map Release

- NeDNR will present the preliminary maps at the Consultation Coordination Officer meeting
 - FPA and community leadership must attend
- Any additional changes now require technical data provided by communities
 - Must be submitted during appeals period (will open for 90 days)
- The community will be provided with a Summary of Map Action (SOMA)
 - Comprehensive list of all effective Letters of Map Change (LOMC), and the likely outcome after the new maps become effective



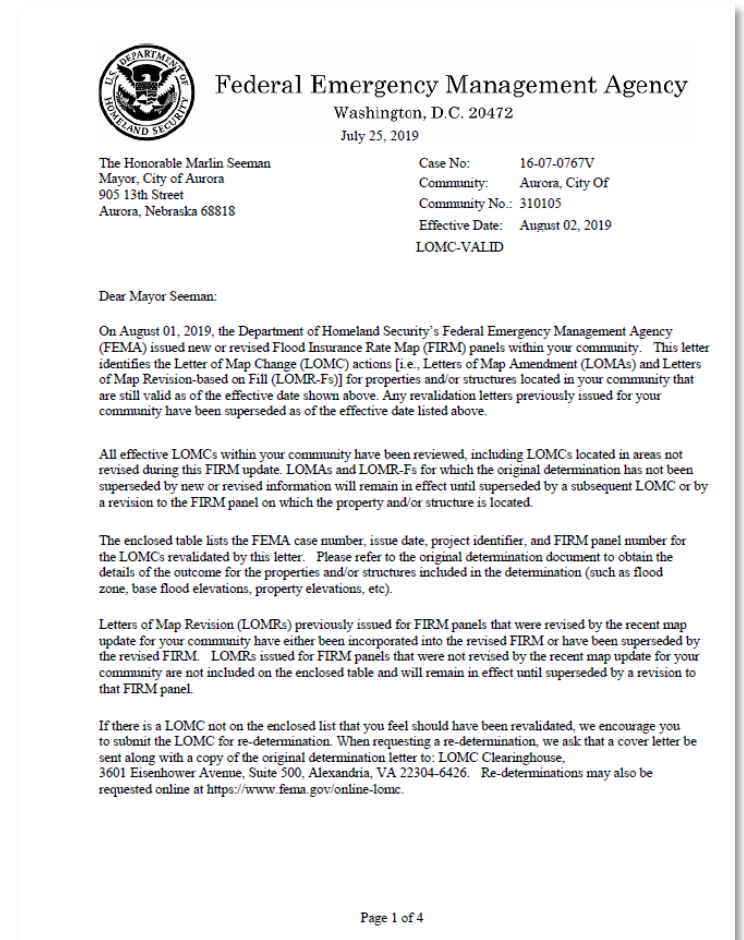
Community's Role – Letter of Final Determination



- The Letter of Final Determination is issued to all community leaders in the project area
- Signifies the start of a 6-month period within which communities must adopt the new maps
- Map adoption is completed through local floodplain ordinances
- NeDNR will likely have already reviewed floodplain ordinances to determine if a new ordinance is needed, or if the existing ordinance can be amended

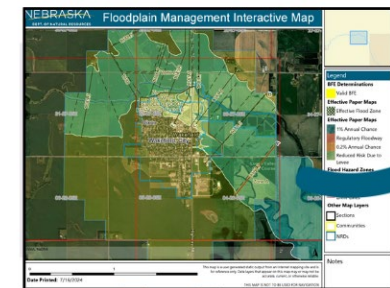
Community's Role – Letter of Final Determination

- Revalidation Letter
 - Issued one day before new map effective date
 - Only lists LOMC that are still in effect with the new maps
 - LOMC that have been superseded, are no longer valid, or were incorporated into the new maps (now shown as out) are not included
 - Again, is only provided to community leadership
 - Share the information with property owners!



Strategies

- Periodic press releases or newspaper articles
- Inserts in mailed bills
- Resources posted on website/social media or community buildings
- Regular discussions with governing body
- Inviting NeDNR to help!
- Other ideas?



Strategies

- Post FIRM panels in office and online
- Ensure floodplain management ordinance is easily accessible either online, in-person, or both!
 - Make the information as easily accessible as possible

ORDINANCE/RESOLUTION NO. {number}

Zoning Overlay District

Floodplain Management Ordinance

60.3(d)

AN ORDINANCE INTRODUCED BY THE GOVERNING BODY CREATING FLOODWAY AND FLOOD FRINGE DISTRICTS DEFINING THE SAME AND SETTING FORTH REGULATIONS THEREOF.

SECTION 1.0 STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of Nebraska has delegated the responsibility to local governmental units to adopt zoning regulations designed to protect the public health, safety, general welfare, and property of the people of the state. The Legislature, in *Nebraska Revised Statutes* Sections 31-1001 to 31-1023 (as amended), has further assigned the responsibility to adopt, administer, and enforce floodplain management regulations to the county, city, or village with zoning jurisdiction over the floodprone area. Therefore the {governing body} of {community name}, Nebraska ordains as follows:

1.2 FINDINGS OF FACT

A. Flood Losses Resulting from Periodic Inundation

The flood hazard areas of {community name}, Nebraska are subject to inundation that results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. General Causes of the Flood Losses

These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities as well as the occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others that are inadequately elevated or otherwise unprotected from flood damages.

1.3 STATEMENT OF PURPOSE


Strategies

- Use this information you learned in this presentation today to inform community members of the importance of preparedness!



Key Takeaways

Key Takeaways

- Preparedness has no end date – continue to update plans and practice regularly
 - Ensure you know the hazards most likely to affect your community
 - Proper floodplain management and outreach is the best preparation for a flooding event
 - Establish a relationship with your emergency manager
 - NeDNR is here to help, with a variety of resources!
- 

QUESTIONS?

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