

Working in Floodplains Maps, Requirements, & Resources

Lori Ann Laster, PE, CFM



PAPIO-MISSOURI RIVER
NATURAL RESOURCES DISTRICT

SHELDON COOPER
© presents ©
FUN WITH FLAGS

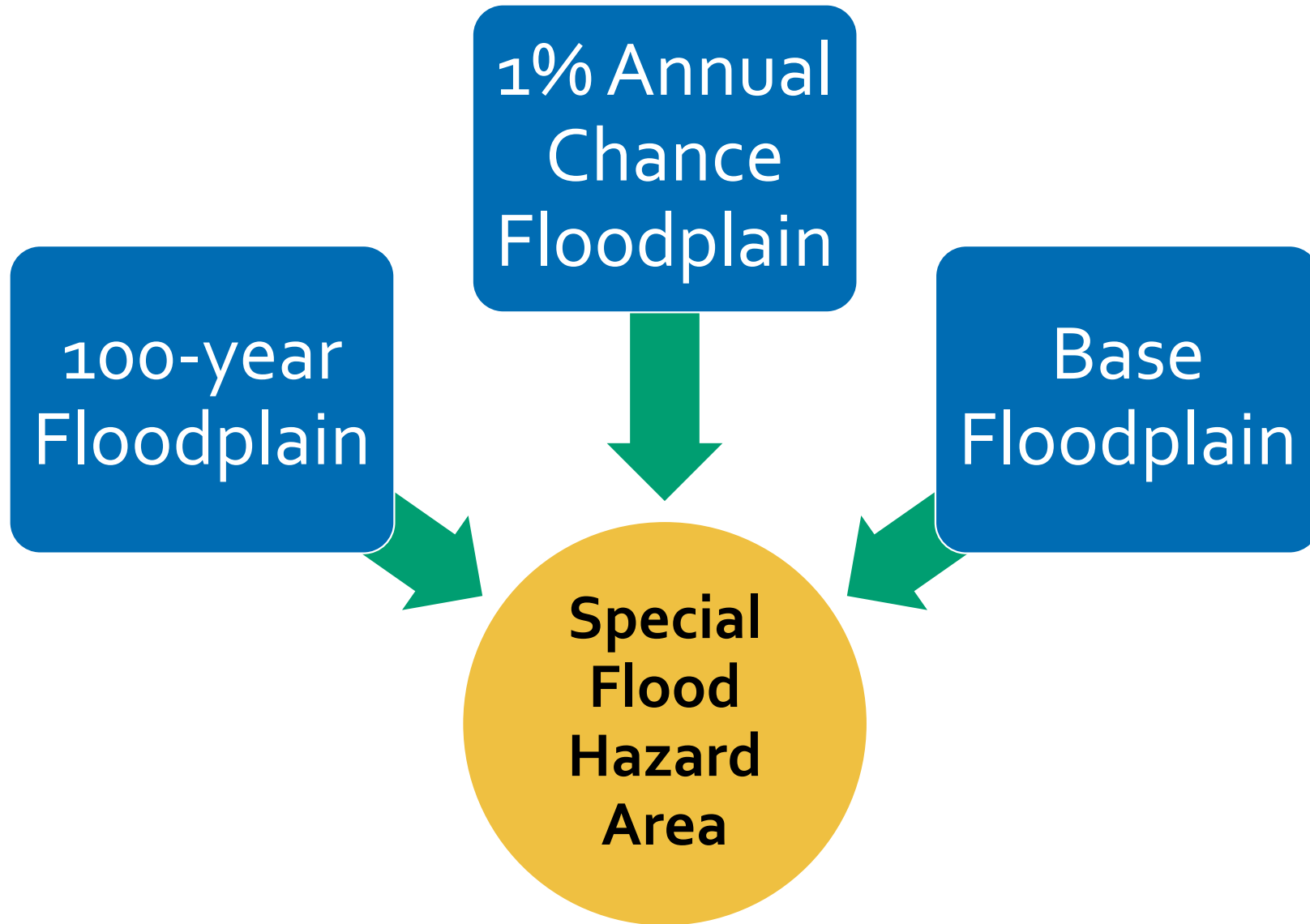
● REC



Who really likes listening to someone talk about maps?

- This is Fergus.
- Became housemate #3 in 2020
- Listened to many, many, MANY meetings and webinars for the first year of his life.
- Gratuitous pictures throughout this presentation to add visual interest.





Maps

Flood Insurance Rate Maps

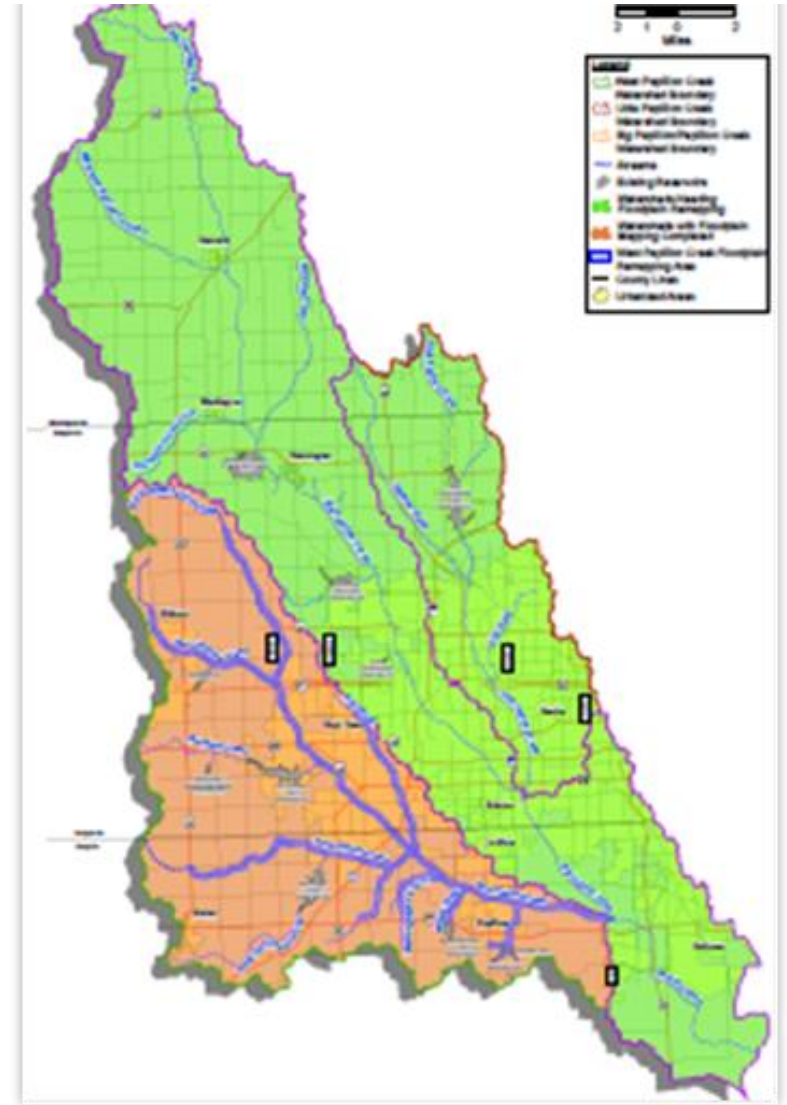
Developed and updated by FEMA in coordination with local entities

Used to determine flood insurance requirements for federally-backed loans

Also used to regulate development in high-risk areas

The Beginning

- FEMA priority to update maps
- West Papillion Basin updated in 2010
- Big Papillion/Little Papillion + Missouri River updates began 2008





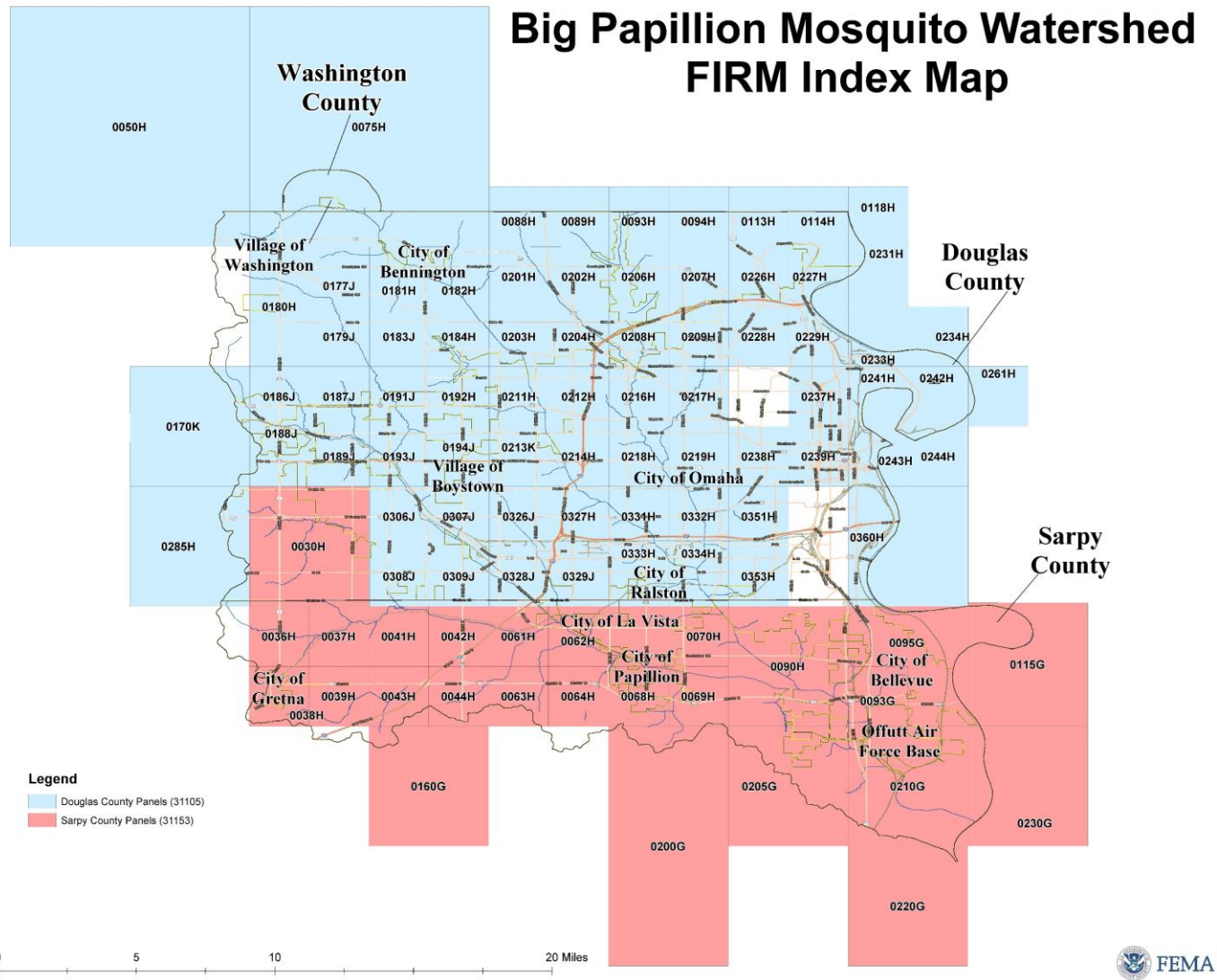
Map Updates

- New Data
 - LiDAR
 - Rainfall Intensity/Distribution
 - Stream Gage Records
- Ongoing Development
- Flood Control Projects

Mapping Updates

Mapping Area

- No panels in Washington County updated
- 3 panels in Cass County along the Platte River included



Mapping Process

Update Maps & Data

Issue Preliminary Study

Community Outreach/Public Review
– 90 Day Appeal Period

We Are Here!

Letter of Final Determination – 6
month compliance period

New Maps Effective





Timeline

- Preliminary Maps issued February 17, 2022
- Public Open Houses June 2022
- Appeal Period October 5, 2022 – January 3, 2023
- FEMA evaluating appeals and comments

Best Available Data

- For purposes of floodplain management regulations, the maps are considered the best available data. Communities will use the new maps to determine compliance with floodplain regulations.
- ***EXCEPT – If the preliminary map shows a reduction in flood risk, the current effective map must be used until preliminary is finalized.***

Requirements

National Flood Insurance Program

- Communities must join the National Flood Insurance Program (NFIP) in order to make federal flood insurance available to their residents
- 44 CFR 60 – communities must adopt ordinances to regulate development in the floodplain
- Ordinance must require floodplain development permits for all projects in the floodplain
- Communities are also required to ensure that project are built according to approved plans.

What is Development?

A permit is required for almost any development-related change to the floodplain, *including but not limited to:*

- Construction of new structures
- Modifications or improvements to existing structures
- Excavation
- Filling
- Paving
- Drilling
- Driving of piles
- Mining
- Dredging
- Land clearing
- Grading
- Permanent storage of materials and/or equipment



Floodplain Development Permit Requirements

ALWAYS



Location
Map



Grading
Plans



Building
Plans



Elevation and
Survey Data



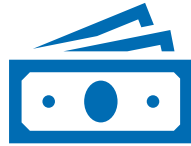
Project
Narrative



Agency/
Community
Coordination

Floodplain Development Permit Requirements

Sometimes...



Cost Estimates



No-Rise
Certification

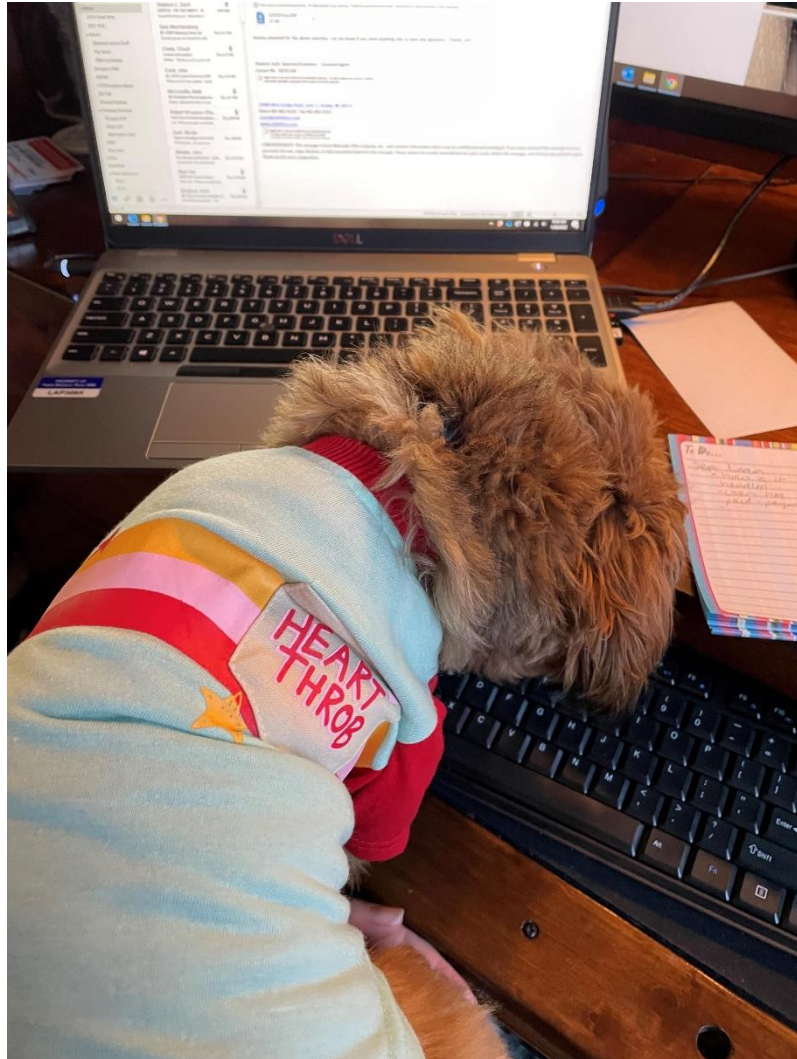


Hydraulic
Models

Development Standards

- Generally found in community zoning ordinances
- Specify building construction requirements
- How permits are to be processed
- Appeal process
- Minimum Standards
 - Federal
 - State
 - Local





The Key to Success...

DOCUMENTATION

- Assume you are talking to someone who doesn't know a single thing about your project.
- Provide clear drawings and maps.

How Do I Know I'm in the Floodplain?

Online Resources

- <https://msc.fema.gov>
- <https://dnr.nebraska.gov/floodplain/interactive-maps>
- <https://papiofloodmaps.org/>

FEMA Map Service Center

<https://msc.fema.gov>

FEMA Flood Map Service Center: Welcome!

Looking for a Flood Map? [?](#)

Enter an address, a place, or longitude/latitude coordinates:

Search

Looking for more than just a current flood map?

Visit [Search All Products](#) to access the full range of flood risk products for your community.



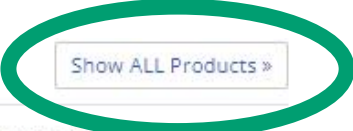
About Flood Map Service Center

The FEMA Flood Map Service Center (MSC) is the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Use the MSC to find your official flood map, access a range of other flood hazard products, and take advantage of tools for better understanding flood risk.

FEMA flood maps are continually updated through a variety of processes. Effective information that you download or print from this site may change or become superseded by new maps over time. For additional information, please see the [Flood Hazard Mapping Updates Overview Fact Sheet](#)

FEMA Map Service Center

Search Results—Products for OMAHA, CITY OF

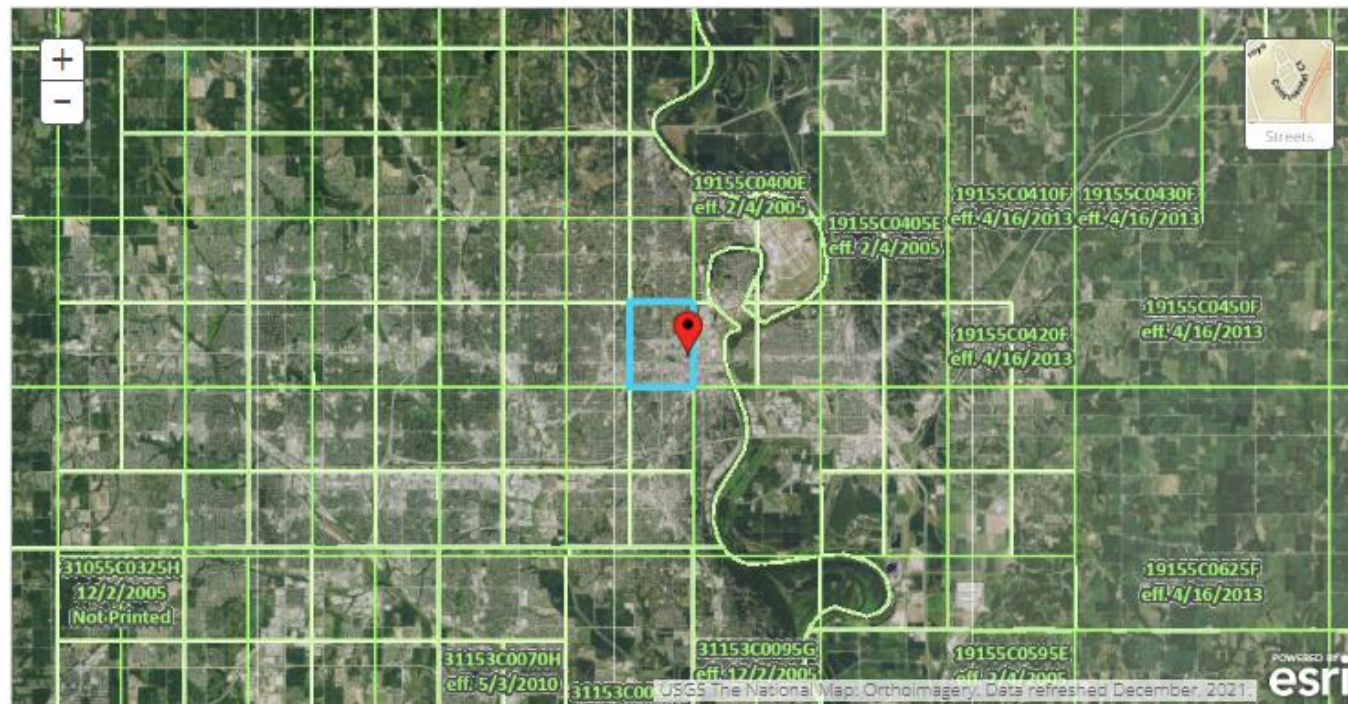
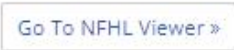


The flood map for the selected area is number 31055C0239H. The flood map for this location has a status of "not printed". This means that the entire area of the panel is in a single flood zone, so FEMA chose to economize and not create a printable image for this location. However, the flood zone data is viewable on the interactive map below and you can print a map for your location using the "FIRMette" button

DYNAMIC MAP



You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette.



Approximate location based on user input and does not represent an authoritative











Without Base Flood Elevation (BFE)
Zone A, X, A99
With BFE or Depth

20.2
17.8
Cross Sections with 1% Annual Chance
Water Surface Elevation

Search Results for OMAHA, CITY OF

Click [subscribe](#) to receive email notifications when products are updated. If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a [map specialist](#).

Please Note: Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

-  Effective Products (433) 
-  Preliminary Products (78) 
-  Pending Product (0) 
-  Historic Products (213) 
-  Flood Risk Products (5) 

FEMA Map Service Center

FEMA Map Service Center

Search Results—Products for OMAHA, CITY OF

Show ALL Products »

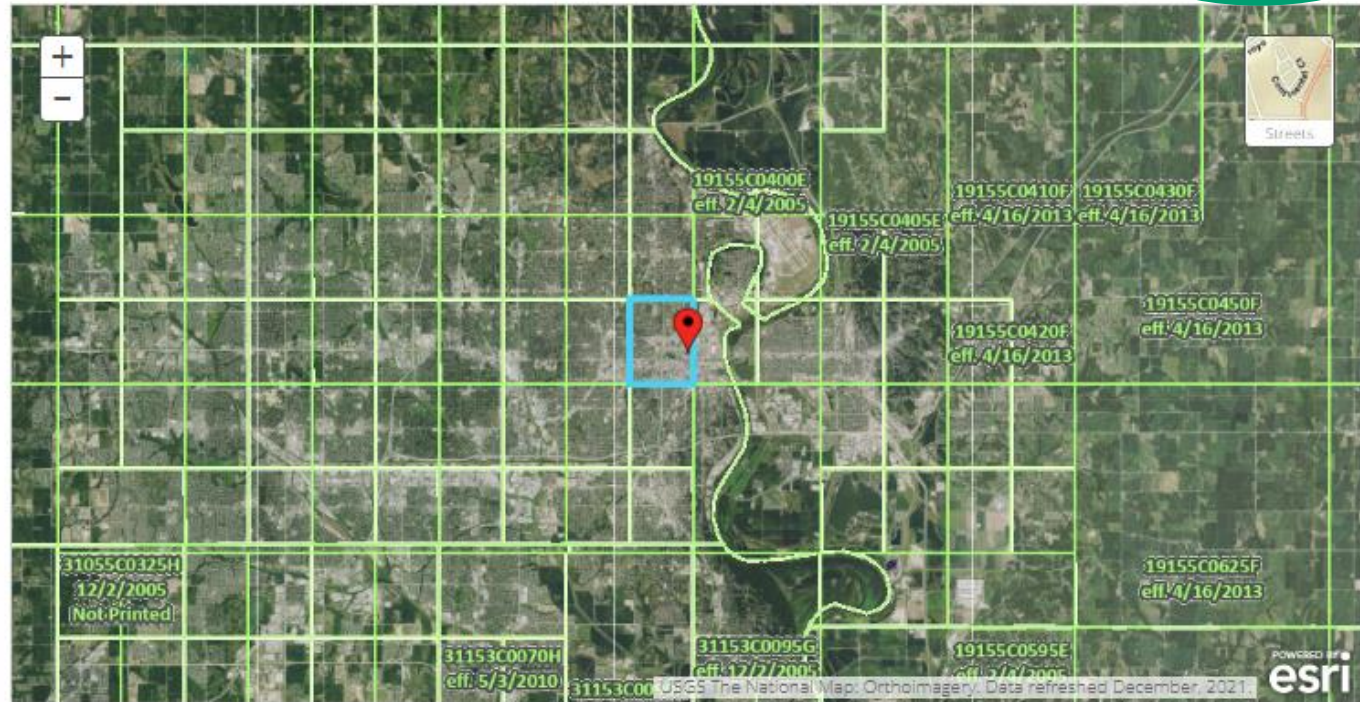
The flood map for the selected area is number 31055C0239H. The flood map for this location has a status of "not printed". This means that the entire area of the panel is in a single flood zone, so FEMA chose to economize and not create a printable image for this location. However, the flood zone data is viewable on the interactive map below and you can print a map for your location using the "FIRMette" button

DYNAMIC MAP



You can choose a new flood map or move the location pin by selecting a different location on the locator map below or by entering a new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette.

Go To NFHL Viewer »



Approximate location based on user input and does not represent an authoritative

Without Base Flood Elevation (BFE)
Zone A, X, A99
With BFE or Depth

20.2
17.8
Cross Sections with 1% Annual Chance
Water Surface Elevation

FEMA Map Service Center- National Flood Hazard Layer

FEMA's National Flood Hazard Layer (NFHL) Viewer with Web AppBuilder for ArcGIS

Find address or place

City of Omaha Extraterritorial Jurisdiction 315274

31055C0204H eff. 12/2/2005

31055C0208H eff. 12/2/2005

31055C0212H eff. 12/2/2005

31055C0216H eff. 12/2/2005

City of Omaha Extraterritorial Jurisdiction 315274

City of Omaha Extraterritorial Jurisdiction 310353

31055C0193J eff. 5/3/2010

31055C0194J eff. 5/3/2010

31055C0213K eff. 5/3/2010

31055C0214H eff. 12/2/2005

31055C0218H eff. 12/2/2005



City of Omaha Extraterritorial Jurisdiction

NFHL Print Tool

Input Output

To print NFHL FIRMette or Full FIRM:

- 1) Click the pin tool, and click on the map to place the pin.
- 2) Choose to create a print-size FIRMette or full-size FIRM.
- 3) Press "Execute" - The process may take up to 1 minute.*

Size*

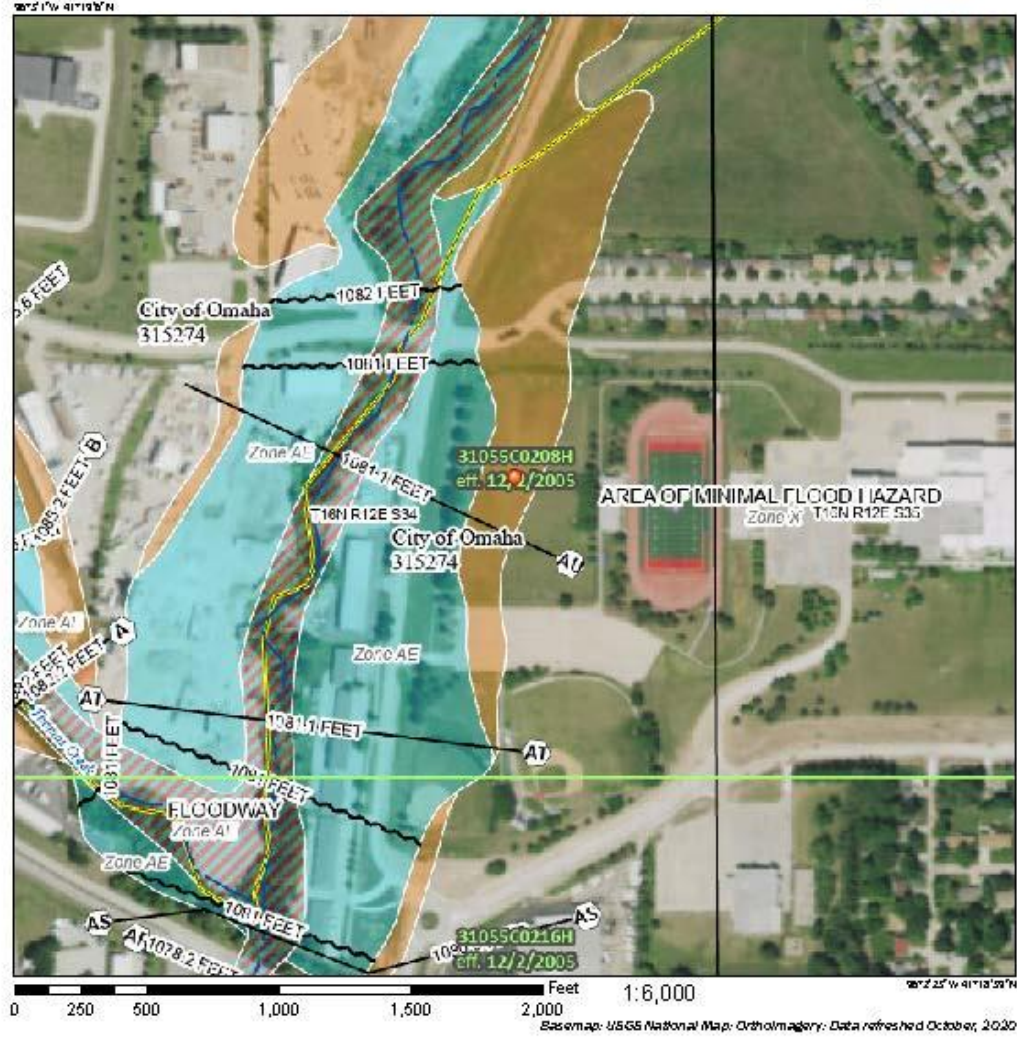
FIRMETTE

File Format*

FIRMette

Official
copy of a
portion of
a FIRM

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

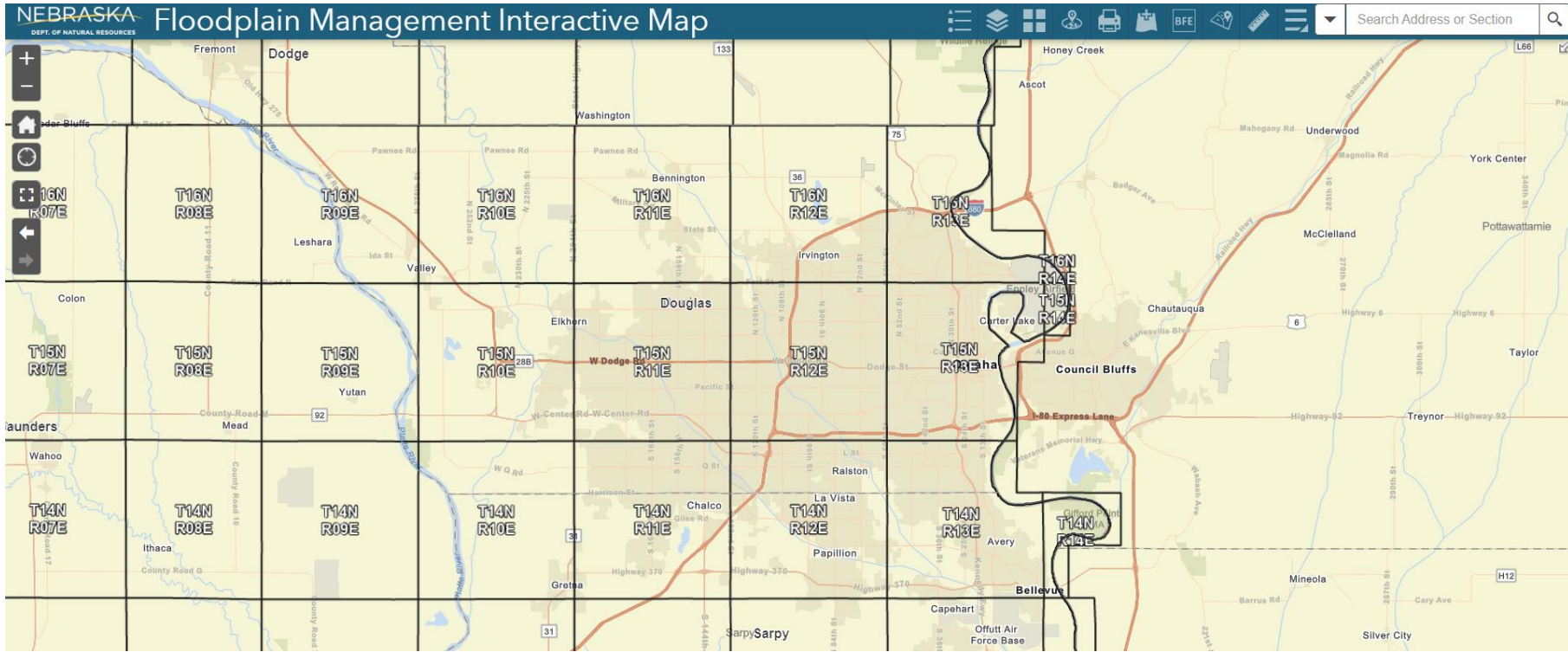
SPECIAL FLOOD HAZARD AREAS		Without Basic Flood Elevation (BFE) Zone A, V, AE2
		With BFE and Depth Zone A, A1, A1.1, AE, AE1
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with average depth less than one foot or with drainage areas of less than one square mile, Zone X
		Future Contributions 1% Annual Chance Flood Hazard, Zone X
		Area with Reduced Flood Risk due to Levee, See Notes, Zone X
		Area with Flood Risk due to Levee, Zone D
OTHER AREAS		Area of Minimal Flood Hazard, Zone C
		Effective 10 MFRs
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Roadwall
OTHER FEATURES		Cross Sections with 1% Annual Chance
		Water Surface Elevation
		Casual Trespass
		Basic Flood Elevation Line (BFE)
		Limits of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was updated on 11/7/2022 at 4:45 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map is void if the site or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map coordinate data, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and uninterpolated areas cannot be used for regulatory purposes.



NeDNR Interactive Map

<https://dnr.nebraska.gov/floodplain/interactive-maps>

Papio Flood Map Viewer

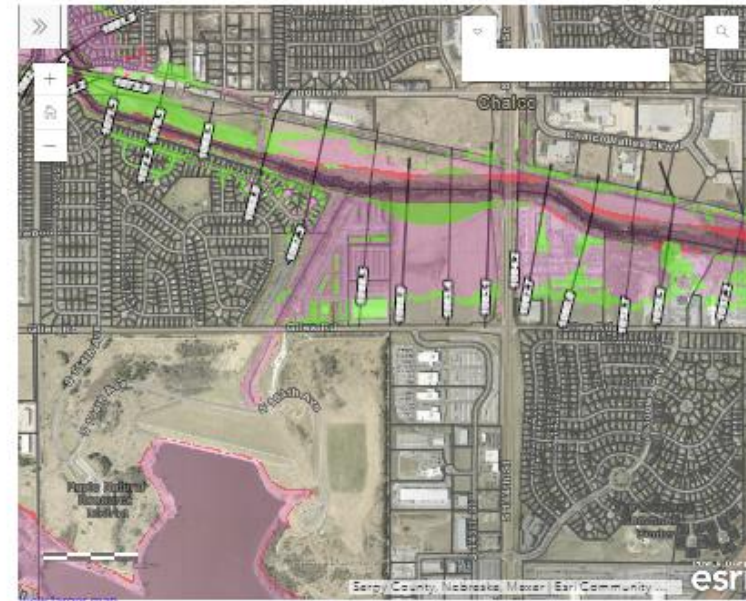
<https://papirofloodmaps.org/>

Map Viewer

Please note that no changes have been made to the Elkhorn and Platte Rivers. These floodplains are not shown on this map. Please visit [FEMA's Map Service Center](#) for the floodplain boundaries in those areas.

Legend

- Increased Flood Risk
- Decreased Flood Risk
- Preliminary Floodplain
- Preliminary Floodway
- Effective Floodplain
- Effective Floodway



Papio Flood Map Viewer

[LATEST NEWS](#)

[MAP VIEWER](#)

[COMMENTS](#)

[RESOURCES](#)

[COMMUNITY CONTACTS](#)

Papio Flood Map Viewer

<https://papirofloodmaps.org/>

Resources

[Douglas County Preliminary Flood Insurance Study](#)

- [Volume 1](#)
- [Volume 2](#)
- [Volume 3](#)
- [Volume 4](#)

[Sarpy County Preliminary Flood Insurance Study](#)

- [Volume 1](#)
- [Volume 2](#)
- [Volume 3](#)

[National Flood Insurance Program](#)

[Be Ready for a Flood](#)

[Nebraska Department of Natural Resources – Floodplain Management Section](#)

[Papio-Missouri River Natural Resources District](#)

[Reduce Flood Risk](#)

Papio Flood Map Viewer

[LATEST NEWS](#)

[MAP VIEWER](#)

[COMMENTS](#)

[RESOURCES](#)

[COMMUNITY CONTACTS](#)

Papio Flood Map Viewer

<https://papirofloodmaps.org/>

Community Contacts

Papio-Missouri River NRD

- [Lori Laster](#), 402.315.1773
- [Amanda Grint](#), 402.315.1722

City of Omaha

- [Robert Laroco](#), 402.444.5150 x 2056

Douglas County

- [Stacy Gillman](#), 402.444.4590

City of Ralston

- [Dan Freshman](#), 402.331.6677 x 1310

City of Bennington

- [Mindi Laaker](#), 402.238.2375

Sarpy County

- [Kelly Jeck](#), 402.593.1555

City of Bellevue

- [Tammi Palm](#), 402.293.3038

City of Gretna

- [Dan Giitinger](#), 402.332.3336 x 202

City of La Vista

- [Jeff Sinnett](#), 402.593.6400

City of Papillion

- [Travis Gibbons](#), 402.597.2077

City of Springfield

- [Kathleen Gottsch](#), 402.253.2204

Questions?

Lori Ann Laster, PE, CFM
Papio-Missouri River NRD
LLaster@PapioNRD.org
402.315.1773

