

## 2022 NeFSMA Annual Conference is Here!

By Elijah Kaufman, CFM

Registration is now open for the Nebraska Floodplain & Stormwater Managers Association (NeFSMA) 2022 Annual Conference! The conference will be held on Thursday, July 21, 2022, at the Younes Conference Center in Kearney from 8:00am – 4:00pm. Three concurrent sessions will be available for you to learn about a variety of key floodplain and stormwater management topics, including an opening presentation from Kansas stormwater engineer Tom Jacobs and a keynote presentation from Orton Management's Lee Orton.

New this year, "IMMERSED VR: A Virtual Reality Experience About Flood and Resilience," will also be present throughout the event for a hands-on, fully "immersed" experience! Attendees wear a headset to experience disasters, practice mitigation strategies, and learn about resilience all without leaving the comfort of the conference center.

A social night on the 20th of July will allow you to meet, learn from, and play trivia games with other professionals in Nebraska and across the United States. The social night begins at 7:00pm at the conference center.

Registration for the conference is \$100 for NeFSMA members and \$135 for non-members. To register, visit the event page [here](#). Hotel rooms at the Fairfield Inn have been blocked for \$124.95 until July 22, for conference attendees. ■

## Floodplain Management Section to De-Obligate Work

By Jamie Reinke, PE, CFM

Over the past five years, NeDNR and FEMA worked together to plan and fund an ambitious business plan to bring updated flood risk information to communities across the state. Flooding, the COVID19 pandemic, and staffing issues have led to significant delays in completing this plan. As a result, NeDNR and FEMA have worked together to update the plan with a schedule and project capacity that is realistic for the Floodplain Management Section to achieve. The updated plan will result in multiple projects being de-obligated from existing grants, allowing NeDNR to utilize in-house staff and contractors to complete the remaining projects in a timely manner.

The de-obligated project areas are still of great importance to the agency, and NeDNR plans to resume these projects as soon as possible to deliver updated flood risk data to those communities. All of the de-obligated projects will be resumed over the next six years, pending FEMA approval and budget availability, as outlined in the NeDNR Fiscal Year (FY) 2022 Business Plan, which can be viewed [here](#). In the meantime, NeDNR will

contact the communities in the de-obligated project areas to discuss plans moving forward and the data and services we can provide while communities wait for updated flood risk information.

Our current plan, pending FEMA approval, will focus in-house efforts on completion of:

- **Scotts Bluff County Paper Inventory Reduction (PIR) – Data Development:** NeDNR will maintain funds to complete Zone A floodplain boundaries throughout the county. NeDNR will also complete the enhanced studies for Scottsbluff. Flood risk products will be created for

- See [De-Obligate](#) cont. on page 3.

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## Mark Your Calendar



### Annual Conference

July 21, 2022  
8:00 AM - 4:00 PM  
Younes Conference Center  
Kearney, NE  
[Register HERE](#)



Image courtesy <https://preparecenter.org>

## IMMERSED Comes to NeFSMA! July 21, 2022

By Adele Phillips, CFM

Nationwide, flooding is the most common and costly natural disaster. We can minimize the impact by decisions we make called mitigation. FEMA has created “IMMERSED,” a virtual reality experience about floods, to expand the way all of us think about risk and inspire us to take steps toward mitigation actions.

IMMERSED accomplishes this by inviting participants to test their knowledge of flood mitigation through a series of critical-thinking scenarios. FEMA’s goal is for each IMMERSED participant to leave the experience feeling inspired, and equipped with the knowledge necessary to start mitigation projects, such as:

- Flood Warning Signs
- Bioswales
- Permeable Pavement
- Natural Wetlands
- House Elevations
- Buyouts

We hope that many of you will take advantage of this exciting opportunity to experience virtual reality and to learn about a broad range of mitigation options to consider. ■

**De-Obligate** cont. from page 1.

communities within the county and the Platte River corridor. The project will conclude with a flood risk review meeting to discuss the results of the study.

- **Middle North Platte – Scotts Bluff** – Data Development: NeDNR will maintain funds to complete the enhanced study in Bayard, a Zone A study in Bridgeport, and to complete flood risk products for communities within the watershed and the Platte River corridor.
- **Big Nemaha** – Data Development: NeDNR will maintain funds to complete Zone A floodplain boundaries and flood risk products throughout the watershed.

NeDNR will also complete enhanced studies for Firth and Tecumseh. A kick-off meeting will be scheduled in the near future and the project will conclude with a flood risk review meeting to discuss the results of the study.

- **South Fork Big Nemaha** – Data Development: NeDNR will maintain funds to complete Zone A floodplain boundaries and flood risk products throughout the watershed. A kick-off meeting will be scheduled in the near future and the project will conclude with a flood risk review meeting to discuss the results of the study.
- **Little Nemaha** – 1-Dimensional (1D) Base Level Engineering

(BLE): NeDNR will maintain funds to complete a 1D analysis in this watershed. The 1D BLE results will be compared to the 2D BLE results and a report outlining the results will be developed.

- **Statewide Regressions Equations:** NeDNR will maintain funds to complete the development of the statewide stream network. A request for proposals will be prepared and issued in the future to find a contractor to complete the regression analysis and associated task work.

The plan also includes managing contract projects and conducting in-house reviews in the following project areas:

- **Boone County PIR** – Data Development: NeDNR will maintain funds for our contractor to complete Zone A floodplain boundaries throughout the county and for in-house reviews on this data. The project will conclude with a flood risk review meeting to discuss the results of the study.
- **Custer County PIR** – Data Development: NeDNR will maintain funds for our contractor to complete Zone A floodplain boundaries throughout the county and the enhanced study in Broken Bow. We will also maintain funds to complete in-house reviews on this data. The project will conclude with a flood risk

- See **De-Obligate** cont. on page 5.

### YOUR SUGGESTIONS WELCOME!

What common permitting situations you have experienced in your community and would like to see discussed in the NeDNR Floodplain newsletter? Please send suggestions to Adele Phillips at [Adele.Phillips@Nebraska.gov](mailto:Adele.Phillips@Nebraska.gov)

# Discount Explanation Guide



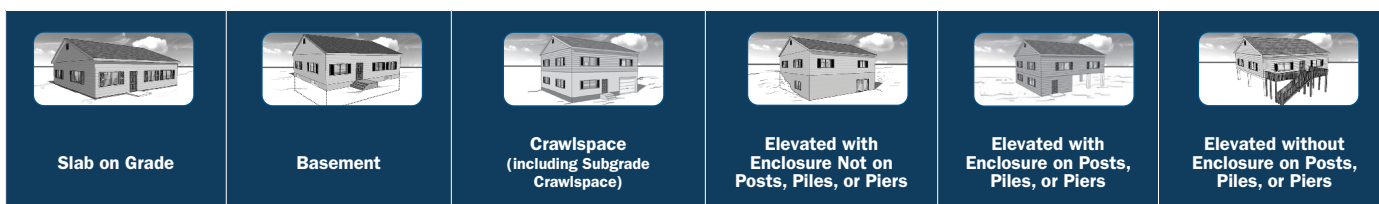
**Risk Rating 2.0: Equity in Action** is FEMA's individualized approach to risk assessment, built on years of investment in flood hazard information.

By using current data, flood models, and technology, FEMA considers many risk factors for individual properties, including frequency of flooding, multiple flood types, distance to a flooding source, and property characteristics such as elevation and the cost to rebuild.

Mitigation efforts, community programs, and other discounts can help reduce flood damage and, potentially, the cost of flood insurance. This guide provides discount information on certain rating variables that are generally applied to the building and contents premium.

## Foundation Type

Below are the six Foundation Types, which provide important insight as to where the flood risk is likely to begin. Buildings Elevated with Enclosure Not on Posts, Piles, or Piers will have a higher premium than buildings Elevated without Enclosure on Posts, Piles, Piers, if all rating variables are the same.



## First Floor Height

The First Floor Height (FFH), or the height of the building's first lowest floor above the adjacent grade, is another rating variable critical to understanding the flood risk. Generally, buildings that are higher off the ground have lower risk. The following chart shows the discount percentage based on the foundation type and FFH, which is included in the amount charged for building and contents coverage. For example, a building with a crawlspace foundation and FFH of 3 feet above adjacent grade corresponds to a 22.1% discount compared to the same building having a FFH of 0. Between whole numbers, the discount for FFH is continuously provided (interpolated). For example, a building with a slab-on-grade foundation and FFH of 1.25 feet will receive a discount of -9.85%, which is a quarter of the way between the discount for 1 foot and 2 feet.

First Floor Height* (In Feet)	Slab on Grade	Basement	Crawlspace (including Subgrade Crawlspace)	Elevated with Enclosure Not on Posts, Piles, or Piers	Elevated with Enclosure on Posts, Piles, or Piers	Elevated without Enclosure on Posts, Piles, or Piers
0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1	-8.0%	-8.0%	-8.0%	-8.0%	-9.0%	-10.0%
2	-15.4%	-15.4%	-15.4%	-15.4%	-17.2%	-19.0%
3	-22.1%	-22.1%	-22.1%	-22.1%	-24.6%	-27.1%
4	-28.4%	-28.4%	-28.4%	-28.4%	-31.4%	-34.4%
5	-34.1%	-34.1%	-34.1%	-34.1%	-37.6%	-41.0%
6	-36.7%	-36.7%	-36.7%	-36.7%	-43.2%	-46.9%
7	-39.3%	-39.3%	-39.3%	-39.3%	-48.3%	-52.2%
8	-41.7%	-41.7%	-41.7%	-41.7%	-53.0%	-57.0%
9	-44.0%	-44.0%	-44.0%	-44.0%	-57.2%	-61.3%
10 - 14	-46.3% to -54.4%	-46.3% to -54.4%	-46.3% to -54.4%	-46.3% to -54.4%	-61.1% to -73.3%	-65.1% to -77.1%
15 - 25	-56.2% to -70.9%	-56.2% to -70.9%	-56.2% to -70.9%	-56.2% to -70.9%	-75.7% to -86.6%	-79.4% to -88.9%

\*Although the chart shows FFHs up to 25 feet, we recognize it is rare that the FFH will reach those measurements for most foundation types.



## Flood Openings

Policyholders may receive a mitigation discount if the building's enclosure or crawlspace is constructed with proper flood openings or engineered openings with documentation. Flood openings can lower a building's flood risk as they allow floodwaters to flow through a building's enclosure or crawlspace. The following chart shows the discount percentages based on eligible foundation types and FFH. For example, a building Elevated with Enclosure Not on Posts, Piles, or Piers with a FFH measurement of 9 feet above the adjacent grade corresponds to a 11.8% mitigation discount, compared to the same building without proper flood openings, which would receive no flood openings discount. Between whole numbers, the discount for Flood Openings is continuously provided (interpolated). For example, a building with a crawlspace foundation and a FFH of 4.25 feet will receive a discount of -2.225%, which is a quarter of the way between the discount for 4 feet and 5 feet.

First Floor Height* (In Feet)	Crawlspace (including Subgrade Crawlspace)	Elevated with Enclosure Not on Posts, Piles, or Piers	Elevated with Enclosure on Posts, Piles, or Piers
1	-0.5%	-0.5%	-0.5%
2	-1.1%	-1.1%	-1.1%
3	-1.7%	-1.7%	-1.7%
4	-2.1%	-2.1%	-2.2%
5	-2.6%	-2.6%	-2.7%
6	-5.2%	-5.2%	-3.2%
7	-7.4%	-7.4%	-3.7%
8	-9.6%	-9.6%	-4.3%
9	-11.8%	-11.8%	-4.7%
10 - 14	-13.8% to -20.6%	-13.8% to -20.6%	-5.1% to -7.1%
15 - 25	-22.1% to -27.1%	-22.1% to -27.1%	-7.8% to -9.0%

\*Although the chart shows FFHs up to 25 feet, we recognize it is rare that the FFH will reach those measurements for most foundation types.

## Machinery & Equipment

Policyholders may receive a **5% mitigation** discount if certain covered Machinery and Equipment (M&E) and appliances servicing the building, whether inside or outside the building, are elevated to at least the elevation of the floor above the building's first floor.

## Floor of Interest: Number of Floors in Building

The building's number of floors above the ground (excluding enclosures, on grade or subgrade crawlspaces, basements, and attics used only for storage) may result in reduced insurance rates. For example, a building with three floors may receive a greater discount for this rating variable than if that same building had only one floor. The table below shows discounts based on the number of floors in the building and occupancy type. This rating variable does not apply to residential or non-residential units.

Number of Floors in Building	Single Family Home Building Occupancy	All Other Building Occupancies (Excluding Residential Unit and Non-Residential Unit)
1	0.0%	0.0%
2	-10.0%	-10.0%
3	-30.0%	-30.0%
4	-	-37.3%
5	-	-42.3%
6	-	-45.9%
7	-	-48.8%
8-100	-	-51% to -69%



## Floor of Interest: Floor of Unit

For a residential or non-residential unit inside a multi-floor building, the floor where the unit is located may impact the premium. Units above the first floor receive a higher discount as shown in the table below.

The Floor Where the Unit Is Located	Residential/Non-Residential Unit Building Occupancy
1	0.0%
2	-71.8%
3	-88.4%
4+	-88.9%

## Statutory Discounts

FEMA provides statutory discounts on the first \$35,000 of coverage for buildings and \$10,000 of contents coverage for pre-Flood Insurance Rate Map (FIRM) primary residences and newly mapped properties, as well as those in the Emergency Program or located in the AR or A99 flood zone.

The table below shows the discount percentage that applies to the policy's first term of eligibility for the statutory discount. For subsequent renewal terms, the statutory annual increase cap applies.

Statutory Discount	Discount Percentage
Newly Mapped	70%
Pre-FIRM Discount	60%
Emergency Program	60%
AR Zone	60%

## CRS Discount

Under Risk Rating 2.0: Equity in Action, Community Rating System (CRS) discounts ranging from 5% to 45% are applied uniformly. The community's CRS discount applies to all CRS eligible NFIP policies in the community regardless of flood zone.

**Note:** A loss and expense constant is applied to the full risk premium separate from any of the discounts mentioned above. As a result, the difference in full risk premium between any two quotes will not exactly match the percentages listed. Additionally, certain discounts may not apply to the coastal erosion portion of the premium, if applicable. Policies may also be subject to minimum or maximum rates by peril and coverage, which may impact how discounts are applied and the specific amount of premium savings. To learn more, go to: <https://www.fema.gov/flood-insurance/risk-rating>

### De-Obligate cont. from page 2.

- review meeting to discuss the results of the study.
- **Box Butte County PIR** – Data Development: NeDNR will maintain funds for our contractor to complete Zone A floodplain boundaries and flood risk products throughout the county and for NeDNR to complete in-house reviews on this data. The project will conclude with a flood risk review meeting to discuss the results of the study.
- **Sheridan County PIR** – Data Development: NeDNR will maintain funds for our contractor to complete Zone

- A floodplain boundaries and flood risk products throughout the county and for NeDNR to complete in-house reviews on this data. The project will conclude with a flood risk review meeting to discuss the results of the study.
- **Keg-Weeping Water** – 2-Dimensional (2D) BLE: NeDNR will maintain funds for our contractor to complete a 2D BLE analysis for the watershed and for NeDNR to complete in-house reviews on this data.
- **Little Nemaha** – 2D BLE: NeDNR will maintain funds for our contractor to complete a 2D

- BLE analysis for the watershed and for NeDNR to complete in-house reviews on this data.
- **Salt**– 2D BLE: NeDNR will maintain funds for our contractor to complete a 2D BLE analysis for the watershed and for NeDNR to complete in-house reviews on this data.

NeDNR plans to de-obligate the following:

- **Lower Elkhorn:** NeDNR requested LiDAR after the March 2019 flood event. The first phase of LiDAR was delivered in

- See [De-Obligate](#) cont. on page 6.



**De-Obligate** cont. from page 2.

- 2021, but the second phase has been delayed with no expected delivery date.
- **Upper Elkhorn:** NeDNR requested LiDAR after the March 2019 flood event. The first phase of LiDAR was delivered in 2021, but the second phase has been delayed with no expected delivery date
- **North Fork Elkhorn:** NeDNR recognizes the importance of studying the Elkhorn basin as a whole. With Norfolk sitting near the confluence of the Elkhorn River and the North Fork Elkhorn River we feel this study will be most accurate if the Upper Elkhorn and North Fork Elkhorn studies are conducted simultaneously.
- **Middle Big Blue:** NeDNR experienced delays in collecting survey data and delays in the release of the modeling software we intended to use for the enhanced studies. Due

to the delays and the heavy workload, we have decided to de-obligate this project and fund it in the near future.

- **Turkey:** NeDNR experienced delays in collecting survey data and delays in the release of the modeling software we intended to use for the enhanced study. In addition, DeWitt's location at the confluence of Turkey Creek with the Big Blue River at the downstream end of the Turkey watershed, again, will be most accurately represented by conducting the Turkey and upper Middle Big Blue watershed simultaneously.

It is expected that Preliminary through Effective Mapping tasks will be contracted through FEMA's Production and Technical Services (PTS) contractors moving forward. The projects that NeDNR will work with FEMA to transition to the PTS include:

- Cheyenne County

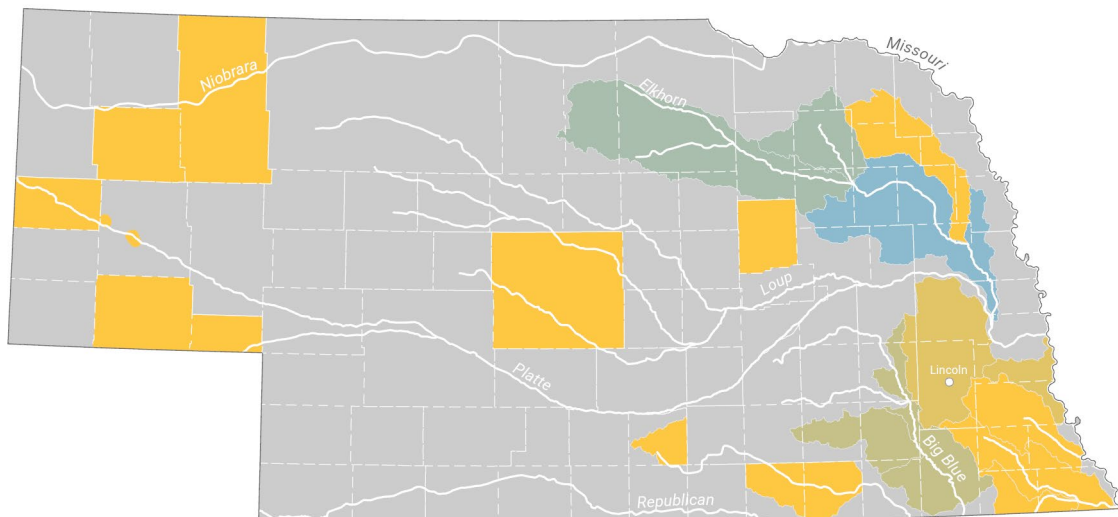
- Deuel County
- Wayne County
- Kearney County (Portion within Upper Little Blue)
- Nuckolls County (Portion within Upper Little Blue)
- Thayer County
- Cedar County
- Dixon County
- City of Bayard
- City of Bridgeport
- Boone County
- Custer County
- Box Butte County
- Sheridan County

As we work through these changes with FEMA, we will do our best to keep you updated on any changes. While this has been a difficult decision for all parties to reach, these changes allow NeDNR to focus efforts on smaller project areas to provide you with the best flood risk data. If you have any questions, please reach out to Jamie Reinke at [jamie.reinke@nebraska.gov](mailto:jamie.reinke@nebraska.gov). ■

## Flood Risk Mapping Project Priority Areas

NeDNR endeavors to map all of Nebraska's floodplains to accurately depict impacts to flood risk throughout the state. NeDNR's current priorities are to finish mapping where projects have been started. These areas include the Nemaha and Blue River basins. As discussed in the previous article, there are ongoing projects in the Elkhorn River Basin that have been put on hold due to large channel shifts that occurred during the 2019 Flood. These projects are also being reprioritized for completion. The map below, excerpted from the 2022 State of Nebraska Flood Hazard Mitigation Plan, illustrates these mapping priority areas for the next several years. ■

- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5



## Mark Your Calendar

### 07.13 ■ NEMA Emergency Planning

8:00 AM – 5:00 PM CDT  
Kearney, NE

This course is for emergency management personnel who help to develop effective emergency planning systems. It offers training in the basics of the emergency planning process. This course is geared towards individuals involved in crisis and emergency management decision making. To learn more, visit this [link](#).

### 08.10 ■ Substantial Damage Estimator (SDE) 3.0

9:00 AM – 5:00 PM CDT  
Troy City Hall, Troy, MO

When structures located within the floodplain or floodway are damaged, they must be inspected by the Floodplain Administrator. SEMA Floodplain staff has developed a workshop teaching all aspects of FEMA's SDE 3.0 program. Communities attending the workshop will receive tools to set up the SDE process. Workshop agenda topics include an inspection of a damaged building. For more information and to register, visit this [link](#).

### 07.21 ■ NeFSMA Annual Conference

8:00 AM – 4:00 PM CDT  
Younes Conference Center, Kearney, NE

This year's conference promises another full agenda of fun and informative events. To view the agenda and register, visit this [link](#). The Nebraska Floodplain and Stormwater Managers Association (NeFSMA) was founded in 2005 by a group of interested professionals in floodplain and stormwater management working in Nebraska to promote public awareness of floodplain and stormwater management.

### 09.14 - 09.15 ■ NPZA/APA 2022 Planning Conference

Younes Conference Center  
Kearney, NE

Conference details are still being finalized; registration details will be available soon. The Nebraska Annual Planning Conference provides local planning officials with sound planning principles for their counties and municipalities. It also offers many choices for the professional planners, which assist the volunteer planners, in expanding their knowledge of planning disciplines through NE APA. For more information, visit this [link](#).

### 07.25 - 07.28 ■ E0273: Managing Floodplain Development Through the NFIP

This course teaches local, state, tribal, territorial and federal officials skills to administer and enforce floodplain management regulations. It covers concepts like floodplain management, flood maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance. 12 CECs for CFMs. To learn more, visit this [link](#).

### 09.14 ■ Substantial Damage Estimator (SDE) 3.0

9:00 AM – 5:00 PM CDT  
Lebanon Public Works, Lebanon, MO

When structures located within the floodplain or floodway are damaged, they must be inspected by the Floodplain Administrator. SEMA Floodplain staff has developed a workshop teaching all aspects of FEMA's SDE 3.0 program. Communities attending the workshop will receive tools to set up the SDE process. Workshop agenda topics include an inspection of a damaged building. For more information and to register, visit this [link](#).

## July

Su	M	Tu	W	Th	F	Sa
			13			
				21		
	25	26	27	28		

## August

Su	M	Tu	W	Th	F	Sa
			10			

## September

Su	M	Tu	W	Th	F	Sa
			14	15		

## Want More Information?

Visit the NeDNR Floodplain Management website at: <https://dnr.nebraska.gov/floodplain>

Check out our Interactive Floodplain map at: <http://ne.gov/go/floodriskmap>

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Shuhai Zheng, Ph.D., PE, CFM	Division Head, Engineering Programs & Services	(402) 471-3936

Or, stop by! **NeDNR is pleased to announce that our office has relocated.**  
**Please note the address change below and stop in to see our exciting new space.**

This newsletter is produced by the NeDNR Floodplain Management Section and is partially supported by funding through a Cooperative Agreement with the Federal Emergency Management Agency. The contents do not necessarily reflect the view and policies of the federal government.