

Flood Studies Throughout the State

By Jamie Reinke, PE, CFM

The NeDNR Floodplain Management Section partners with FEMA to update flood risk information for communities throughout the state. This work is completed under the FEMA Program known as Risk Mapping Assessment and Planning (Risk MAP). NeDNR receives financial support from FEMA and conducts flood studies using department staff, which is somewhat unique among state governments in the country. We use this opportunity to help connect communities undergoing flood studies with floodplain management technical assistance and training.

Our goal in conducting Risk MAP projects for Nebraska is to deliver high quality data that increases public awareness of flood risk. This will lead to actions that reduce risk to life and property. We engage communities throughout the project to help them understand the new data, NFIP requirements, and the best ways to communicate risk to citizens.

Risk MAP projects are performed at the watershed and county scale. All communities throughout the watershed are part of the community engagement process for these projects. The watershed-wide components include creating Flood Risk Products. Flood Risk Products provide additional information related to a property's or community's

flood risk, such as flood depths and probability of being flooded. At the county level, regulatory Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FIS) are produced.

NeDNR has ongoing grant funds (FY2016 through FY2019) to complete tasks for the following projects:

- **Middle North Platte – Scotts Bluff:** *Data Development and Regulatory Products.* NeDNR received funding to complete enhanced studies in Bridgeport and Bayard and to complete Flood Risk Products for the entire watershed based on the Base Level Engineering boundaries that were created as part of our FY2016 grant. NeDNR also received funding to create regulatory products, including Flood Insurance Rate Maps (FIRMs) and a Flood Insurance Study (FIS) for Bridgeport and Bayard.
- **Lower Elkhorn:** *Data Development.* NeDNR received funding to complete enhanced studies for Howells and Madison as a continuation of the work funded in the Lower Elkhorn watershed in FY2017. Due to the extensive flooding in March 2019 this project has been placed on hold. The flooding resulted in significant changes in the channel alignment. New topographic data (LiDAR) is being acquired to accurately map this watershed. NeDNR will resume mapping activities once the updated LiDAR has been received.
- **Lewis & Clark Lake:** *Data Development and Regulatory Products.* NeDNR completed floodplain boundaries for the watershed based on the results of the base level engineering

boundaries that were created as part of our FY2017 grant. NeDNR recently completed the flood risk products for the watershed. NeDNR also received funding to create regulatory products, including FIRMs and FIS documents in Cedar County and Dixon County.

- **North Fork Elkhorn:** *Data Development.* NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2017 base level engineering study. NeDNR will complete enhanced studies for Pierce and Norfolk as part of the data development phase. Flood risk products will be created for the watershed.
- **Upper Elkhorn:** *Data Development.* NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2017 base level engineering study results. Enhanced studies will be completed for Norfolk, O'Neill, and the Elkhorn River in Madison County. After floodplain boundaries are finalized, flood risk products will be created. Due to the extensive flooding in March 2019 this project has been placed on hold. The flooding resulted in significant changes in the channel alignment. New topographic data (LiDAR) is being acquired to accurately map this watershed. NeDNR will resume mapping activities once the updated LiDAR has been received.
- **Logan:** *Data Development and Regulatory Products.* NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2016 base level engineering study. NeDNR is completing enhanced studies for

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Wayne, Wakefield, and Randolph as part of the data development phase. Flood risk products will be created for the watershed. NeDNR also received funding to create regulatory products, including FIRMs and the FIS document in Wayne County.

- **Upper Little Blue: Data Development and Regulatory Products.** NeDNR received funding to determine updated Zone A floodplain boundaries for the watershed, outside of Adams County and Clay County, which were previously remapped. NeDNR completed an enhanced study for Hebron. NeDNR received funding to create regulatory products, including FIRMs and FIS documents for all of Thayer County and the portions of Nuckolls County and Kearney County within the Upper Little Blue Watershed.
- **Middle Big Blue: Data Development.** NeDNR received funding to complete Zone A floodplain boundaries based on the results of

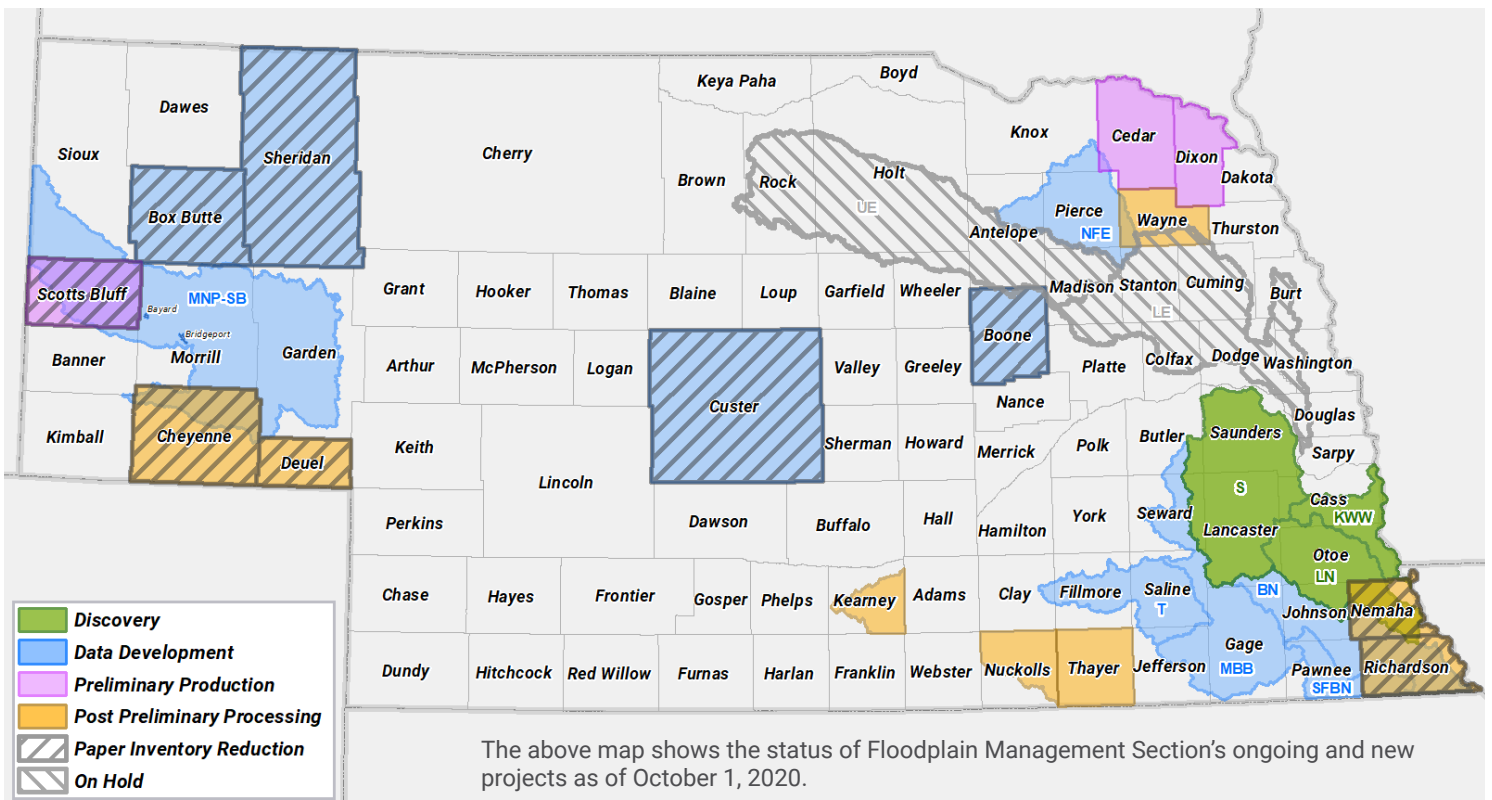
the FY2018 base level engineering study. NeDNR will complete enhanced studies for Beatrice, Blue Springs, Crete, DeWitt, Wilber, and the Big Blue River in Saline County. Flood risk products will be created for the watershed.

- **Turkey: Data Development.** NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2018 base level engineering study. NeDNR will complete an enhanced study for DeWitt. Flood risk products will be created for the watershed.
- **Big Nemaha: Discovery / Base Level Engineering and Data Development.** NeDNR is completing the remaining items in the Discovery phase and will move into Data Development in late 2020 or early 2021. NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2018 base level engineering study. NeDNR will complete enhanced studies for Firth and Tecumseh. Flood risk products will be created for the watershed.

- **South Fork Big Nemaha: Discovery / Base Level Engineering and Data Development.** NeDNR is completing the remaining items in the Discovery phase and will move into Data Development in late 2020 or early 2021. NeDNR received funding to complete Zone A floodplain boundaries based on the results of the FY2018 base level engineering study. Flood risk products will be created for the watershed.
- **Statewide Regression Equations:** NeDNR received funding to conduct a study to develop updated statewide regression equations. This project will include creation of a statewide stream network, completion of a Bulletin 17c analysis on existing gaging stations, LiDAR processing, and development of basin characteristics.

During this grant period, we also continued studies in several counties as part of a Paper Inventory Reduction (PIR) project. PIR projects are similar to Risk MAP projects, but have the goal of reducing the amount of paper FIRMs still in effect for counties.

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We are currently working on Data Development for PIR projects in Cheyenne, Deuel, Scotts Bluff, Custer, and Boone Counties. We are working on regulatory phases for Nemaha and Richardson Counties.

During the FY20 grant period, we will be working on the following Risk MAP and PIR projects:

- **Salt: Discovery and Base Level Engineering.** NeDNR received funding to complete the Discovery Report and the base level engineering within the watershed.
- **Little Nemaha: Discovery and Base Level Engineering.** NeDNR received funding to complete the Discovery Report and the base level engineering within the watershed.
- **Keg-Weeping Water: Discovery and Base Level Engineering.** NeDNR received funding to complete the Discovery Report and the base level engineering within the watershed.

- **Scotts Bluff County: Regulatory Products.** NeDNR received funding to create regulatory products, including FIRMs, FIS document, and other similar products for Scotts Bluff County.
- **Box Butte County PIR:** NeDNR received funding to complete updated engineering through Effective maps, including FIRMs, FIS document, and other similar products, for Box Butte County.
- **Sheridan County PIR:** NeDNR received funding to complete updated engineering through Effective maps, including FIRMs, FIS document, and other similar products, for Sheridan County.

Each of these county or watershed projects will extend several years and we will continue to update stakeholders of each project's status. FEMA has only provided funding for the tasks described above. Funding full mapping projects to effective status will depend on future federal funding. ■

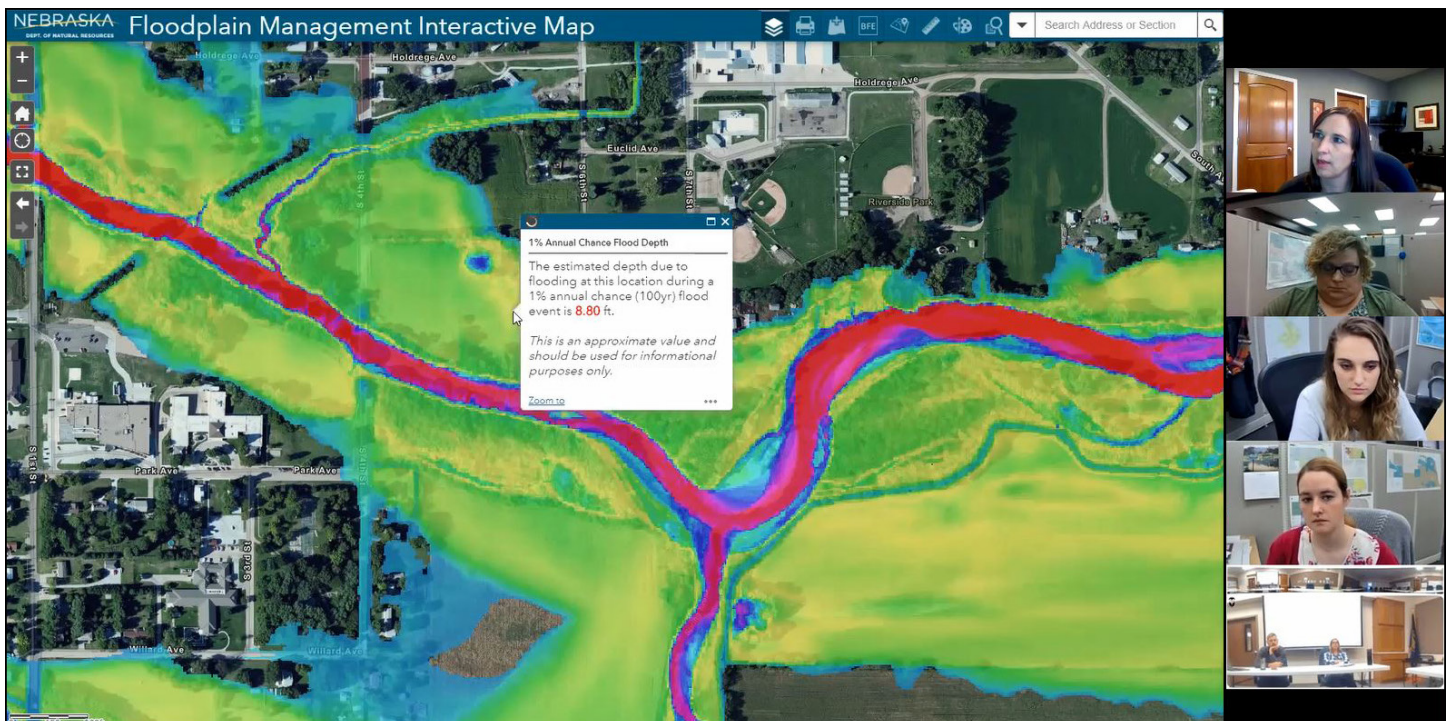
NeFSMA 2020 Annual Membership Meeting

By Chuck Chase, CFM

COVID-19 has had its effect on so much of what we do and how we do it and the Nebraska Floodplain and Stormwater Managers Association (NeFSMA) Annual Membership Meeting is no exception. On November 10, due to COVID-19 case numbers and new Directed Health Measures in place for Nebraska, the NeFSMA Board of Directors decided that the meeting will move forward **online only**.

The Annual Membership Meeting will still be packed with relevant topics for the floodplain and stormwater manager. One such presentation titled "The Bank Keeps on Slipping, Slipping, Slipping...Into the River" will discuss emergency flood repair and mitigation projects. The session will be presented by Felsburg, Holt, and Ullevig (FHU). Regarding the

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During the October 20, 2020, *Upper Little Blue Watershed Flood Risk Review Meeting*, NeDNR's Jamie Reinke, PE, CFM, demonstrated for attendees how to view flood depth information in Hebron, NE, as shown in the "1% Annual Chance" layer on the NeDNR Floodplain Management Interactive Map. The Interactive Map may be found online here: dnr.nebraska.gov/floodplain/interactive-maps.



Lessons Learned: Post-2019 Flood Community Assistance Contacts

By NeDNR Staff

After Nebraska's devastating 2019 spring floods, NeDNR hosted a Community Assistance Contact (CAC) with every National Flood Insurance Program (NFIP) participating community that reported any level of flood damage. We at NeDNR understand that the necessary steps for our floodplain administrators (FPAs) to take after a disaster may not be fresh in your minds. Our goal was to not only check-in with communities, but also to use this time as a mini refresher course on the NFIP requirements. The CACs helped us reestablish contact with NFIP communities, determine if any program-related problems exist, and identify future training needs.

The project was unlike anything that NeDNR's Floodplain Management Section has undertaken before. In just 5 months, our NFIP team hosted over 150 CACs! Compare that to a typical year, when the department hosts approximately 25 CACs with communities identified as needing the most assistance. So, what have we learned from the CACs that we can use to better serve our NFIP communities?

You care about your community and you wear lots of hats.

Floodplain administrators are dedicated to their communities and that commitment is often shown in the multiple roles that you fulfill. Many of these roles—such as serving as your community's clerk or administrator—require daily attention, meaning there's less time to attend to floodplain-related tasks. You're often the only one shouldering floodplain administration responsibilities. Some FPAs have found ways to increase effectiveness through collaboration with other departments and using GIS systems.

It's hard to stay fresh.

Our rural communities do not experience a lot of growth, resulting in low demand for floodplain administration needs. This, in turn, leads to inexperience with floodplain development permitting, damage assessments, and general floodplain management. Furthermore, the lack of FPA experience leads to a common lack of understanding of floodplain management responsibilities within the community's governing body. Through the CACs and to help you stay fresh, we shared with you upcoming trainings and how to access a variety of resources: the Floodplain Interactive Map, various FEMA resource documents, and how to ensure receipt of our Floodplain Management Today newsletter.

Turnover is a challenge.

In our outreach, we often discovered that previous FPAs were no longer in that role! Our emails and telephone numbers were outdated. When new FPAs fill the seat, they often receive inadequate training and sometimes incomplete documentation from the previous FPA. Regulatory floodplain ordinances or maps may not be passed down, and therefore may be unused for long periods of time, or even lost. Connection to NeDNR and other supporting agencies is often lost.

In our CACs, we discussed the importance of writing down administrative procedures.

You're eager to learn, and to share!

We found that communities that had attended trainings offered by NeDNR and FEMA shortly after the 2019 spring flooding were able to successfully utilize the guidance and

templates that were provided for recovery response. Many of you were appreciative of the mini refresher course in floodplain management that the CACs provided. We also discovered that there is a large interest in virtual training opportunities on a wide range of topics, such as: Basic Floodplain Management, Substantial Damage Estimation, Violations and Enforcement, and more. Not just novice FPAs are interested in the trainings, but experienced FPAs are as well.

By dividing the CACs between a team of four staff members, NeDNR was able to present more of our "faces" to communities. We want you to feel comfortable contacting us and to know that we are here to serve you! Contact information is provided for the entirety of the Floodplain Management Section team at the end of each newsletter.

3 Key Take-Aways.

As demonstrated by the lessons learned above, the sheer number of CACs allowed NeDNR to learn incredibly valuable information about its NFIP participating communities and how to better serve you. Many positive outcomes were accomplished through this project and we'd like to summarize with the following advice:

- **Collaboration lightens the load.** Work across sectors—such as with your roads departments, emergency managers, law enforcement, and utilities departments—to monitor development and spread the word about floodplain regulations.
- **"Blue Sky" activities lessen post-disaster work and aid in continuity.** Disasters happen. Organize address lists of properties in Special Flood Hazard Areas, write out administrative procedures and disaster response procedures, and

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presentation. Aaron Hirsh, a Water Resources Engineer for FHU said, “Our presentation on two 2019 flood emergency repair projects for the NDOT will discuss challenges of a highly accelerated project schedule and the inherent issues that resulted, the unique tools and solutions utilized on these projects, and some of the construction challenges faced due to continuous high flows at the project sites.”

JEO Consulting Group’s John Callen and Mary Baker will present “Flood Risk Reduction in Fremont – Pathways to Resilience.” John and Mary will discuss the many layers of short-term and long-term recovery for a community that has multiple sources of flood risk. With flooding stretching across the Platte River, Rawhide Creek, and the Elkhorn River, Fremont experienced different types of flood risk and impacts during the March 2019 flooding. From levee repairs to parcel level mitigation, the road is long for the many communities recovering from last year’s historic flooding, and Fremont is no exception.

Joining from Colorado, Jeff Sickles, the ASFPM Stormwater Management Committee Co-chair, will speak about ASFPM’s Report on Urban Flooding. The report is a step toward helping communities deal with areas that experience non-riverine flooding during rain events. All communities, including small ones, occasionally deal with urban flooding.

The meeting is free for all NeFSMA members and \$35 for non-members. Please visit www.nefsma.com to register. All Certified Floodplain Managers (CFMs) will receive pre-approved Continuing Education Credits. The NeFSMA Annual Membership Meeting is an event you will not want to miss. ■

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organize other resources during days of calm. Doing so will lessen the work needing to be done during a disaster. Many of these activities are outlined in the follow-up letters you received after having completed your CAC.

- **Virtual trainings are the future.** Providing trainings that can be virtually attended or viewed later is a critical service in our rural state and something we’re committed to at NeDNR. Shifting to a virtual platform will also enable us to provide you with more trainings. Stay tuned for monthly training offerings! ■

Mark Your Calendar:

Emergency Management Institute Trainings:

To apply for any of the courses listed below, fill out the appropriate forms, gather the required signatures, and fax the paperwork to FEMA’s EMI at (301) 447-1658. EMI suggests applying as soon as the class is posted; applications must be submitted at least 6 weeks before the class starts.

11.30-12.03* □ E0273 Managing Floodplain Development Through the NFIP

12 CECs for CFMs, 2.6 CEUs

This course provides local, state, tribal, territorial, and federal officials with the knowledge and skills to administer and enforce floodplain management regulations. The course focuses on the NFIP and concepts of floodplain management, flood maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance. To learn more, visit this [link](#).

**This course is also being offered on January 4 - 7, 2021.*

12.14-12.17 □ E0202 Debris Management Planning for State, Tribal, Territorial and Local Officials

12 CECs for CFMs, 2.4 CEUs

This course provides an overview of issues and recommended actions necessary to plan for, respond to, and recover from a major debris-generating event with emphasis on state, local, and tribal responsibilities. Developed from a pre-disaster planning perspective, the course includes debris staff organizations; compliance with laws and regulations; contracting procedures; debris management site selection; volume-reduction methods; recycling; special debris situations; and supplementary assistance. To learn more, visit this [link](#).

Mark Your Calendar Cont.

**11.19 ■
NeFSMA Annual
Member’s Meeting**

Location:
Online Only
8:30 am - 4:15 pm

On November 10, due to COVID-19 case numbers and new Directed Health Measures in place for Nebraska, the NeFSMA Board of Directors decided to proceed with the conference online only. This year there will be only one track.

Registration is free to current members. If you are not a member, you may attend the meeting for \$35. To learn more and to register, visit this [link](#).

**12.08 □
Natural Hazards Center
Webinars**

12:00 pm - 1:00 pm

The Natural Hazards Center, in partnership with FEMA, has created these free 1-hour “Making Mitigation Work” webinars to feature innovative speakers and highlight recent progress in mitigation policy, practice, and research. To learn more, visit this [link](#).

**12.07 - 12.08 □
Introduction to
Continuity of
Government Planning
for Rural Jurisdictions**

8:30 am - 12:30 pm

This course is designed to help government officials and emergency responders from rural communities in the development of plans for all kinds of emergencies. Disasters and emergencies impact local governments’ abilities to perform essential functions. This is especially true in rural communities where resources are typically limited under the best of circumstances. These communities must develop plans that address succession planning, redundant communications, and alternate site needs for their communities to face increasingly frequent threats. To learn more and to register, visit this [link](#).

**12.16 □
CRS Credit for
Conservation and
Recovery of Threatened
and Endangered Species**

The CRS Webinar Series provides both live and on-demand training to communities that are not yet participating in the CRS, local government staff who are new to the CRS, and those with experience in the program. The Series includes basic introductory sessions and more advanced topics, most averaging about an hour in length. All webinars begin at 12:00 PM, unless otherwise noted. To register, visit this [link](#).

For additional CRS training information, visit this link and search “CRS”: crsresources.org/training

**01.26.2021 □
FEMA Region VI:
Communicating Risk
Through Flood Risk
Products**

12:00 pm - 1:00 pm

FEMA Region 6 has developed a suite of monthly trainings to help communities become more flood-resilient by using flood risk data for future development, emergency planning, and risk communications. To learn more and to register, visit this [link](#).

November

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	.30					

December

Su	M	Tu	W	Th	F	Sa
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	.07	.08	.09			
	.14	.15	.16	.17		
					.28	

January

Su	M	Tu	W	Th	F	Sa
	.04	.05	.06	.07		
		.26				

Want More Information?

Visit Our Floodplain Website at: <https://dnr.nebraska.gov/floodplain>

Or, Contact:

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