

Winter is Here: Beware of Ice Jams

Floodplain Management Section
December 2018

By Brian Dixon, CFM

As we enter another winter, the threat of ice jams return. Nebraska has a long history of ice jams on many streams within the State. Most ice jams are small and localized, but some are large and cause significant flooding. Over half of the State's population lives in communities along streams. Therefore, it is valuable to understand the basics of ice jams and the partnerships that exist in the State.

What is an Ice Jam?

Winter in Nebraska is often characterized by fluctuating temperatures of above and below freezing air temperatures. It is during the below freezing days that river ice sheets will develop, and during the above freezing days that ice starts to thaw causing it to break up and begin flowing downstream. Ice Jams are caused by the broken up ice sheets getting caught up on an obstacle, like a shallow river bend or bridge, where these floating ice sheets begin to pile up on each other, eventually creating an increase in water surface elevation upstream. Depending on the size of the blockage, amount of additional floating ice sheets, and the amount of water flowing down the river, this can become a serious flooding issue for miles upstream. Additionally, depending on the amount of water being held back, a sudden



Flooding along the Platte River due to an Ice Jam.
Photo by Marlin/NeDNR

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breakup of the ice jam can create a serious flash flood issue downstream. Typically, ice jam events occur during the shifting temperature periods between winter and spring, but they can occur throughout the winter season. It is important to respond to ice jams quickly and evaluate them for severity.

Ice Jam Coordination:
While Ice jams occur throughout the state on small and large rivers, most are small; and short lived. However, when a large amount of ice begins to flow down one

of Nebraska's rivers, there may be a serious threat to life and property, especially if the flowing occurs concurrently with a large precipitation event. In order to become more aware of current icing conditions and possible ice jamming, two Ice Jam groups have been formed in Central and Eastern Nebraska. These groups include local Emergency Managers, local Natural Resource Districts, the Nebraska Department of Natural Resources, the Nebraska Emergency Management Agency, the National Weather Service, and the U.S. Army Corps of Engineers. In the event of a significant and serious ice jam, these agencies work together to look for response solutions to limit impacts.

For additional information about ice jams, please contact your local Emergency Manager to understand what your community does in response to ice jams. You can also look at the NeDNR website at <https://dnr.nebraska.gov/floodplain/ice-jam-reporting> or call the Floodplain Management Section at 402-471-2363.

NFIP: The Community Rating System (CRS)

By Brian Dixon, CFM

With 2018 marking 50th Anniversary of the NFIP, it is a good opportunity to look at a program that many Nebraska communities do not take advantage of: The Community Rating System (CRS). CRS is used by very few communities in Nebraska, even though most could take advantage of the program to save a percentage on flood insurance premiums. In Nebraska there is over \$1.75 billion in coverage for structures and contents across 409 communities participating in the NFIP, however only 5 participate in CRS. The City of Lincoln is currently the highest ranked CRS community in Nebraska with a class 5 rating. This means that NFIP policy owners in Special Flood Hazard Areas within Lincoln save 25% off their premiums. The City of Omaha and the City of Papillion have both qualified with a class 7 rating. The City of Fremont and the City of Valley have both qualified with a class 8 rating.

What is CRS?



**The City of Lincoln participates in the CRS Program and thus NFIP premiums are reduced.
Photo by NeDNR**

The Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the Federal minimum requirements of the NFIP. In exchange for a community's proactive efforts to reduce flood risk, flood insurance premium rates for policyholders can be reduced **up to 45%**, depending upon the level of participation. In addition to the reduced insurance rates, CRS floodplain management activities enhance public safety, reduce damages to property and public infrastructure, avoid economic disruption and losses, reduce human suffering, and protect the environment during flooding events. Implementing some CRS activities may also help community projects qualify for other Federal assistance programs.

How does CRS work?

There are 10 CRS Classes ranging from 10, the lowest, to 1, the highest. CRS recognizes 19 creditable activities organized under four categories: Public Information, Mapping and Regulations, Flood Damage Reduction, and Warning and Response. Communities can choose to undertake any or all of these activities. Each activity has a sliding scale point system which can push your community into different Classes. Class 1 requires the most credit points and provides the largest flood insurance premium reduction (45%), while Class 10 means the community does not participate in the CRS or has not earned the minimum required credit points, and residents receive no premium reduction.

Why is this important and who should look into CRS?

As the result of the State of Nebraska's higher standards most Nebraska communities have already implemented activities that would earn enough credit to become a Class 8 or 9 community by simply applying and documenting what is already being done: saving all policyholders in the jurisdiction a minimum of 5% off their premiums. If your community does not yet participate, you should consider participating in CRS. Improving past a CRS classification 8 may take at a few

How much discount property owners in your community can get

Rate Class	Discount for SFHA*	Discount for Non-SFHA**	Credit Points Required
1	45%	10%	4,500 +
2	40%	10%	4,000–4,499
3	35%	10%	3,500–3,999
4	30%	10%	3,500–3,499
5	25%	10%	3,000–2,999
6	20%	10%	2,500–2,499
7	15%	5%	1,500–1,999
8	10%	5%	1,000–1,499
9	5%	5%	500–999
10	0	0	0–499

* Special Flood Hazard Area

** Preferred Risk Policies are available only in B, C, and X Zones for properties that are shown to have a minimal risk of flood damage. The Preferred Risk Policy does not receive premium rate credits under the CRS because it already has a lower premium than other policies. Although they are in SFHAs, Zones AR and A99 are limited to a 5% discount. Premium reductions are subject to change.

years and require investing in specific projects and staff time, but the cost savings in premiums could be worth the effort. Policy changes, plans, and public outreach are worth significant points and are relatively inexpensive efforts, beyond the required staff time. Hard infrastructure projects are often expensive and may not result in enough points to make the project worth the investment based solely on CRS savings. Obtaining a CRS class 1 is very difficult and may not be worth the work for many communities, however, achieving class 6 or 7 is a reasonable goal for most.

Learning more about CRS:

Technical assistance is available through NeDNR for communities planning on joining the CRS program. A preliminary review of a community's program can assist in identifying items that may maximize the number of points. For more information about CRS, please look at FEMA Publication B-573 "A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance". Additionally, NeDNR is proud to co-sponsor a local delivery of L0278: National Flood Insurance Program/Community Rating System June 3-6, 2019 in Omaha. Please see the training opportunities below for information about this and other opportunities.

Discovery in the Panhandle and the Northeast

By Deanna Ringenberg, EI, CFM, Ryan Kelly, CFM, and Brian Dixon, CFM

One of the most significant responsibilities of the Floodplain Management Section is to determine flood risk for communities throughout Nebraska. One of the ways NeDNR does this is through the Cooperative Technical Partners (CTP) Program, often in the form of updated floodplain maps and/or flood risk products. As enhancements in technology, such as LiDAR elevation data, and federal funding become available, NeDNR and FEMA work together to identify areas within the state, by watershed, that could benefit from being restudied. This multi-year process, called Risk MAP, is designed to identify flood risk in communities, communicate that risk to the people impacted, and then provide planning and outreach assistance to the communities to help them reduce or mitigate that risk. The first phase of Risk MAP is Discovery.



NeDNR Engineer, Deanna Ringenberg, presents at the Discovery Meeting in Pierce on September 13, 2018

What is Discovery?

Discovery involves the process of data collection, stakeholder engagement, a Discovery Meeting, and post-meeting activities. In whole, Discovery is a collaborative effort between community officials and residents, tribal governments, state and federal agencies, and other stakeholders in order to compile information to help determine flood risk. This can include historical flood data, flood hazard and mitigation information, and additionally, one-on-one information gathered from stakeholders at the Discovery Meeting.

For more general information on the Discovery Phase of Risk Map, please read [The Risk MAP Process: Discovery](#) from the July 2017 newsletter, located on the [NeDNR website](#).



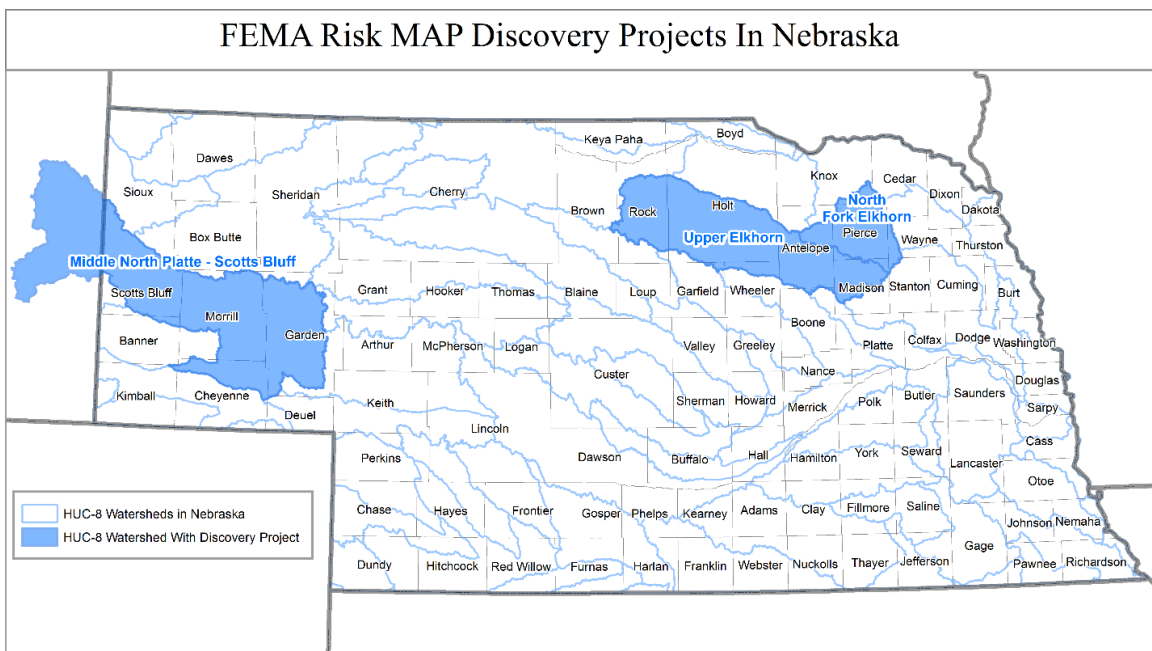
NeDNR Natural Resources Specialist, Ryan Kelly presents at a Discovery Meeting in Neligh on September 19, 2018.

Discovery Projects:

Recently NeDNR completed Discovery projects in three different watersheds: the North Fork Elkhorn Watershed, the Upper Elkhorn Watershed and the Middle North Platte – Scottsbluff Watershed. Meetings were held within each of these watersheds in which County, City, and Village officials and administrators, along with emergency managers, and special district administrators were invited to attend a meeting which provided an overview of the Discovery phase. At the meetings, the importance of first-hand information, along with the reasoning behind the watershed’s selection for a new flood hazard

study were discussed. While there, NeDNR and FEMA staff fielded questions regarding the new mapping process and the value in joining the NFIP. Attendees also had the opportunity to see draft versions of the new floodplain boundaries, provide comments on the boundaries, and identify areas where recent development had taken place. NeDNR received some great feedback which will be used as the projects move forward.

For more information about Risk MAP or the mapping process, please visit: dnr.nebraska.gov/floodplain-mapping or <https://www.fema.gov/risk-mapping-assessment-and-planning-risk-map>



Mark Your Calendar

If you have questions about any of these opportunities, please contact Chuck Chase at chuck.chase@nebraska.gov or 402.471.9422.

All times listed as Local Time.

273: Managing Floodplain Development through the National Flood Insurance Program (NFIP) January 6-10, 2019, Lincoln, Nebraska, 8:00 am – 5:00 pm

The Nebraska Department of Natural Resources will be hosting a FEMA 273 course. This course provides an introductory training opportunity for local officials responsible for administering their floodplain regulations. The course will focus on the National Flood Insurance Program (NFIP) and concepts of floodplain management, maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance.

Location: Ortner Center at Union College, 3800 S 48th St, Lincoln, NE 68506.

Additional information: Please contact Chuck Chase at chuck.chase@nebraska.gov

Registration: Please contact Lori Ann Laster at llaster@papiionrd.org

ASFPM – Certified Floodplain Manager (CFM) Exam January 11, 2019, Lincoln, Nebraska, 9:00 am – 12:00 pm

The Nebraska Department of Natural Resources will be hosting a CFM exam following the 273 course listed above. You do not need to attend the 273 course to sit for the exam, but it is recommended.

Location: Ortner Center at Union College, 3800 S 48th St, Lincoln, NE 68506.

Additional information: Please contact Chuck Chase at chuck.chase@nebraska.gov

Registration: Please go to www.floods.org and click on CFM Exam Calendar under the Certification Program Menu.

CFM Exam Study Guide

The ASFPM Certification Board of Regents recently released a new CFM study guide that explains recommended prerequisites, what to expect on exam day, links to all technical references backing up each exam question, and supplemental study materials including videos and online tutorials. To download the new study guides, visit: www.floods.org

278: Community Rating System (CRS) June 3-6, 2019, Omaha, Nebraska, 8:00 am – 5:00 pm

The Nebraska Department of Natural Resources will be hosting a FEMA 278 course. This course covers the CRS, a nationwide initiative of FEMA's NFIP. It describes activities eligible for credit under the 2017 CRS Coordinator's Manual, how a community applies, and how a community modifies an application to improve its classification. Please note: Participants must have an understanding of the NFIP and floodplain management principles. The course material will be difficult to follow without a participant being well-versed in basic concepts of floodplain management.

Location: Papio-Missouri Natural Resource District Office: 8901 S 154th St, Omaha, NE 68138.

Additional information: Please contact Brian Dixon at brian.dixon@nebraska.gov

Registration: Please contact Amanda Gowans, CFM at Amanda.Gowans@verisk.com

Floodplain Management Basic and Advanced Course Offerings for 2019:

Dates and locations for all NeDNR offered trainings are currently being finalized. To see an up-to-date listing on all training offered, please see the events page on the NeDNR website: dnr.nebraska.gov/calendar

WANT MORE INFORMATION?

Visit NeDNR’s Floodplain Website at
<https://dnr.nebraska.gov/floodplain>

Or Contact

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