#### FLOODPLAIN MANAGEMENT TODAY

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#### Your Questions Answered

By Elijah Kaufman

We spend a lot of time talking oneon-one with floodplain administrators (FPAs) across the state about various floodplain issues. However, we recognize that there is an opportunity to learn from one another in an open setting, where these questions can be heard by all. In November, NeDNR Floodplain Management teammates opened the floor for your questions in a virtual question and answer session. Attendees voiced their pressing floodplain questions in the live setting, or simply listened and absorbed the discussion.

Several questions were posed during the training, ranging from permitting septic systems to updating floodplain regulations, and they are summarized below:

# Are FPAs responsible for septic systems and drain fields along the Platte River, or does that fall into other jurisdictions?

Any time there is development in the floodplain of a FPA's jurisdiction, the FPA is responsible for fulfilling their duties to review the application and approve or deny permission to develop. Remember that floodplain management is often just one tooth in a cog of permitting and compliance; oftentimes there are multiple agencies with overlapping jurisdiction. It is in the FPA's interest to be aware of other jurisdictional agencies, however the project proponent or property owner is ultimately responsible for obtaining any necessary permits.

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#### **Administrator Spotlight: Mike Jensen, Cass County**

By Adele Phillips

Like many of Nebraska's Floodplain Administrators, Cass County's Mike Jensen wears several hats. Having been with Cass County since 1998, Mike currently serves his community as Zoning Administrator, Planner, and Building Inspector. He has experienced multiple flood events as a floodplain administrator including 2010, 2011, and 2019. Mike recently took the time to answer a few questions for NeDNR:

# What parts of the job have you found to be most rewarding or interesting? I enjoy talking to people about the necessity of floodplain regulations, how they can easily minimize losses, and keep their flood insurance premiums affordable.

## What is your greatest success in achieving flood resiliency in your community?

I have always encouraged clients to build 2' above BFE and explained to them the costs and benefits. Nine out of ten applicants would spec it accordingly, so we made it a regulation in 2020.

## What has been the most challenging aspect of the role and how do you handle the challenges?

RV parks can be extremely challenging. On one hand it is a great way to add value to land in the floodplain. On the other hand, they can be very difficult to regulate. Annual inspections are critical to ensure there are no permanent hookups or skirting, and that they are road worthy. Any in a floodway are also required to have their propane tanks removed from the property.

## What lessons learned from the 2019 flooding would you like to pass-on to other FPAs?

People that have just been through such a traumatic event first need to know about resources and where to find them, along with your contact information. Do not go straight into "regulatory mode". Empathize with

- See Spotlight cont. on page 2.



Cass County Floodplain Administrator Mike Jensen is one of Nebraska's many seasoned floodplain administrators. Photo courtesy Mike Jensen.

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How do map changes impact existing LOMAs or LOMR-Fs? Once the applications are approved, LOMAs and LOMR-Fs remain in effect indefinitely, unless new floodplain maps are produced that show increased flood elevations higher than the elevation of the applicable structure or property. All effective LOMAs and LOMR-Fs are reviewed prior to new maps becoming effective, and homeowners are notified if their determinations will remain valid.

Are there size limits for storage sheds to be wet-floodproofed? How is "accessory structure" defined? Accessory structures are defined by FEMA as single-story structures accessory to a principal building used solely for parking of vehicles or storage. The size limit for these structures to be wet-floodproofed must be defined in the community's floodplain ordinance.

## Do realtors need to disclose a property's existence in the floodplain to a buyer?

Per Nebraska Revised Statute § 76-2,120, sellers must disclose any easements, encroachments, and zoning restrictions to a home buyer. Special flood hazard areas qualify as a zoning restriction. On page 3 of the Nebraska Real Estate Commission's "Seller Property Condition Disclosure Statement" a seller must indicate if the property is within a floodplain or floodway.

### How do FPAs know when new floodplain maps become effective?

The community and the community's FPA will be contacted at multiple milestones in a mapping project and will receive a letter of final determination about 6 months before new floodplain maps become effective.

# Should communities consider adopting a higher elevation requirement than 1ft above the Base Flood?

The decision to enforce a higher elevation requirement will enhance a

community's resilience from flooding and may offer protection during an event greater than the base flood. However, this decision should not be taken lightly, and should be discussed amongst the community to determine the benefits and costs. Reach out to the NeDNR floodplain team if your community is interested in this higher standard.

## Where can a FPA find contact information for engineers in Nebraska?

A great place to start for finding registered, professional engineers in your area is to visit the State of Nebraska Board of Engineers and Architects (ea.nebraska.gov) or the Nebraska Society of Professional Engineers (nspenebraska.org).

After the training, attendees completed a survey allowing them to share their thoughts on the content, pace, and class structure anonymously; as well as ask additional questions that may not have been covered during the hour. The feedback was greatly appreciated.

The Q & A session proved to be an efficient and valuable format, and we appreciate those who came with questions. For those unable to attend, look for future Q & A sessions throughout 2023, and we look forward to seeing you online.

#### Spotlight continued from page 1.

them, and let them tell you their story. Only then help guide them through the process, first steps, ensuring the structure is safe to enter, substantial damage inspections etc.

### What advice do you have for novice floodplain administrators?

Do not get overwhelmed. Here in Nebraska we are blessed to have so many great resources. NeDNR is always responsive to any questions you may have. The floodplain conferences are always a great place to network and exchange war stories. It is challenging work, but also very rewarding because you are truly helping people.

### Floodplain Development Permitting

By NeDNR Staff

Flooding is the number one disaster risk in the State of Nebraska. Development in the floodplain must be managed carefully to prevent the loss of life and property. Your job as a floodplain administrator (FPA) is to first carefully review, and then either authorize or deny requests to develop within your jurisdiction's special flood hazard area (SFHA). Doing so provides for the safety of your jurisdiction's property and residents, ensures support through the National Flood Insurance Program (NFIP), and prevents liability to you and your community.

#### What is "development"?

Your community's participation in the NFIP is governed by Title 44 of the Code of Federal Regulations subpart 60.3 (44 CFR §60.3), "Flood plain management criteria for flood prone areas", which requires permits for all development. Development is defined in 44 CFR §59.1 as "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

Further, Nebraska Administrative Code, Title 455, Chapter 1, "Minimum Standards for Floodplain Management Programs" addresses floodplain development by providing standards that "obstructions" in SFHA must meet. Obstruction is defined in §002.16 as, "...any wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation (including the alteration or relocation of a watercourse or drainway), channel rectification, bridge, conduit, culvert, building, stored equipment or material, wire, fence, rock, gravel, refuse, fill, or other analogous structure or matter which may impede, retard, or change the direction of the flow of water, either

- See Permitting cont. on page 3.

#### Permitting continued from page 2.

in itself or by catching or collecting debris carried by such water, or that is placed where the natural flow of the water would carry such structure or matter downstream to the damage or detriment of either life or property."

This is a long list of types of development in the floodplain that are subject to development permitting. To approve a request to develop within the SFHA is to determine that the development will be "reasonably safe from flooding." Approving a permit can be difficult and complex. Denying a permit can be even harder.

In simplest terms, the process is as follows:

- Receive complete application and documents supporting proposed development.
- Review application documents for completeness, accuracy, and compliance with applicable regulations.
- (a) If development application is complete, regulations are complied with, and development "reasonably safe from flooding", approve the application.
   (b) If documents are incomplete or development is not permittable, provide applicant with a comment letter requesting revisions, clarifications, or additional necessary documentation. Repeat steps 1, 2, and 3(b) until the proposed development does comply with requirements, OR it is evident that it cannot.
- Maintain all documents-including proposal-related correspondenceorganized by proposal and location in perpetuity.

An application is "complete" when it contains all the information necessary to confirm that the property complies with regulations, is reasonably safe from flooding, and will not cause adverse impacts on adjacent properties. Some projects require more or different documentation than others. Permission to develop should only be granted after this evidence

is provided. *Never* approve permits on the promise of receiving a future study, analysis, or specification from the project proponent. Considerations such as the presence of endangered species habitat, wetlands, Superfund sites, and archaeological or historical resources needs to be evaluated prior to approval.

Note that some projects require other types of permits *in addition to* the floodplain development permit. These permits must be acquired by the project proponent before the local floodplain development permit is approved. Be situationally aware of other jurisdictions that must be involved, such as the U.S. Army Corps of Engineers or the Nebraska Department of Environment and Energy.

#### Example: Residence

Suppose someone comes to the FPA office with an application to build a residence in a Zone AO (sheet flooding) with a Base Flood Elevation (BFE) of 2' above existing grade. Before approving the permit application, the FPA must review the existing grade, the plans for the development that clearly address the drainage around this obstacle, and the proposed lowest floor elevation of the structure. A site plan that clearly addresses these three issues should be provided by the applicant or project proponent. Given a complete floodplain development permit application and a site plan demonstrating that the proposed development complies with local regulations and will not cause an unacceptable impact on the adjacent properties or infrastructure it may be acceptable to sign the application and allow the development to occur.

After construction is complete, a post construction **Elevation Certificate** (EC) or as-built survey of the land showing compliance must be provided. Such documentation must clearly demonstrate that the home was built in compliance with floodplain regulations as proposed: elevated to 3'

above the Highest Adjacent Grade and that the landscaping was performed in accordance with the drainage plan.

There are many more facets to permitting development in the floodplain which we plan to cover in future installments. Until then, please always feel welcome to contact us with any of your permitting questions: https://dnr.nebraska.gov/floodplain/contact n



Image courtesy Nebraska Game and Parks Commission.

# Biodiversity Spotlight: Western Prairie Fringed Orchid

Did you know that Nebraska has a native orchid? This federal and state-listed threatened species can be found in the wet prairies and meadows of central and northeast Nebraska. However, at least 60% of it's range has been lost. The feathery flowers are pollinated by night-flying moths.

What can you do to help?
Holistic floodplain management, such as allowing rivers to perform their natural floodplain functions, limiting development in flood risk areas, and protecting against wetland destruction, helps protect the habitat of this beautiful species. To learn more about the orchid, go to https://outdoornebraska.gov/westernprairiefringedorchid.

#### Meet Your Floodplain Management Team

The Floodplain Management Section is here to serve the Nebraska's floodplain administrators. We are responsible for coordinating a comprehensive program supporting the wise use of land that is subject to flooding. Several new faces joined our ranks in 2022, so we're introducing the whole team.

#### Management:

Jamie Reinke develops program goals, priorities, and objectives. She manages grants and ensures that a robust body of mapping and outreach projects are advanced throughout the state as part of the floodplain management section's role as a Cooperating Technical Partner with FEMA.

#### Administrative Services:

Michele helps us all stay organized. She assists with outreach event and training preparation, verifies community contacts, reviews documents for accuracy prior to distribution, assists with preparing FEMA reporting documents, and numerous other tasks related to the Floodplain Management Section's responsibilities.

Jamie Reinke, PE, CFM Mapping Project Manager & Engineer, & State NFIP Coordinator



Michele York Administrative Assistant



Chuck Chase, CFM Outreach Coordinator & NFIP Specialist



Adele Phillips, CFM Flood Mitigation Planner

#### Outreach:

The outreach team is here to answer your floodplain management questions. The team assists communities across the state via floodplain ordinance review and adoption, facilitates Community Assistance Visits, Community Assistance Contacts, training sessions, and provides technical assistance.



Elijah Kaufman NFIP & Outreach Specialist



Asa Brayton Outreach Specialist

Meet continued from page 4.



Jared Ashton, PE, CFM Engineer



Deanna Ringenberg, PE, CFM Engineer



Stefan Schaepe, PE, CFM Engineer

#### Engineering:

The engineering team develops guidelines and procedures for mapping work. They conduct approximate and detailed hydrologic and hydraulic analyses for mapping, review and approve Base Flood Elevation determinations, prepare floodplain reports, and delineate floodplains. Our engineers review engineering work developed during FEMA mapping projects and perform Technical Reviews of analysis submitted by local jurisdictions, to verify accuracy and that FEMA guidelines are followed.



Harrison Jones Floodplain Mapping Specialist



Jeehoon Kim Floodplain Mapping Specialist

### Mapping and Technical Assistance:

The Mapping and Technical Assistance staff conduct approximate hydrologic and hydraulic analyses for Base Flood Elevation Requests and mapping, delineate floodplain boundaries, and create Flood Risk Products. They create Flood Insurance Rate Maps and compile the mapping information into databases for FEMA submittal, ensuring the projects follow FEMA guidelines and standards.



Karl Merchant Floodplain Mapping Specialist



Ryan Stastny Floodplain Mapping Specialist

#### **Mark Your Calendar**

### 02.08 - 02.09 ■ G271 Hazardous Weather & Flooding Preparedness

8:00 AM - 5:00 PM Cedar Rapids, IA

Presented by Iowa Homeland Security & Emergency Management, this course provides training for those who respond to hazardous weather events, such as EMA, EMS, Fire, Law Enforcement, local elected officials, non-profit organizations, school officials, and public works employees. The course promotes partnership and coordination with National Weather Service (NWS) and emergency managers. For more information and to register, please visit this **link**.

#### 02.08 □ Virtual Office Hours: Floodplain Q & A

10:00 AM - 11:00 AM

Has placing a call to NeDNR regarding a question or issue been on your to-do list? Mark your calendar now to join floodplain staff to obtain answers to your floodplain related questions. We will welcome all questions from the very basic to the most advanced! Or, feel free to join us to just listen in on topics of interest from other communities! To learn more, visit this link.

#### 02.23 □ Climate and Your Community

1:00 PM - 2:00 PM

NeDNR is excited to host NOAA's Doug Kluck to talk about Nebraska's climate history, ongoing science, and tools relevant to local community officials. One CEC is available for CFMs. To learn more and to register, visit this **link**.

# 03.11 ■ Flooding Hazards: Science and Preparedness

8:00 am - 5:00 pm Bourbon, MO

Presented by Missouri State
Emergency Management Agency,
this course discusses the current
science on the causes of floods, both
meteorological and otherwise, flood
forecasting, flood risk assessment,
and best practices for preparation and
mitigation for both short- and longfuse flooding events. To learn more
and to register, visit this link.

# 03.13 - 03.17 ■ Clerks Institute and Academy

Holiday Inn Kearney, NE

The Nebraska Municipal Clerks Institute and Academy is an annual continuing education professional seminar held in Nebraska during March of each year for municipal clerks in Nebraska. To learn more and to register, visit this **link**.

#### 03.14

## Floodplain Management Workshop

8:30 AM - 5:00 PM Lexington, NE

NeDNR is offering an in-person workshop covering the fundamentals of floodplain management. The topics include: Floodplain Development permits, the permitting process, map reading, LOMAs, LOMR-Fs, and Substantial Damage and Improvement. Two CECs available for eligible CFMs and NFIP community treasurers. To learn more and to register, visit this **link**.

#### 03.15

## Floodplain Management Day

8:00 AM - 4:30 PM Lexington, NE

NeDNR is offering an in-person workshop covering a broad range of topics related to floodplain management. Guest speakers from USACE, Nebraska Department of Energy and Environment, Nebraska Game and Parks Commission, local NRDs, and more will share their expertise during this exciting new event. To learn more, visit this link.

#### Mark Your Calendar Cont.

# 03.15 □ Kansas Department of Agriculture Floodproofing

1:30 PM - 2:30 PM

This course will cover the requirements for wet floodproofing. Topics will include permitting, variances, performance standards and dry floodproofing. One CEC available for CFMs. To learn more and to register, visit this link.

# 03.16 □ Before and After Disaster Strikes: Substantial Damage 101

10:00 am - 12:00 pm

The aftermath of a disaster is not a good time to learn about permitting, the floodplain program, or Substantial Damage Assessments. Join NeDNR staff for an informative 2-hour virtual class on what to do before and after a disaster strikes in your SFHA. Two CECs available for eligible CFMs and NFIP community treasurers. To learn more and to register, visit this link.

# 03.29 □ Kansas Department of Agriculture LOMA and LOMR-F

9:00 AM - 11:00 AM

This class compares Letters of Map Amendment (LOMAs) and Letters of Map Revision Based on Fill (LOMR-Fs) and completion of the forms. Part 1 focuses on the LOMA and part 2 will focus on the LOMR-F. 2 CECs available for CFMs. To learn more and to register, visit this link.

# 04.12 □ Kansas Department of Agriculture Post-Flood Responsibility

1:30 PM - 2:30 PM

This course will cover community responsibilities after a flood. Topics will include surveying damages, substantial damages and permits for repairs. 1 CEC available for CFMs. To learn more and to register, visit this link.

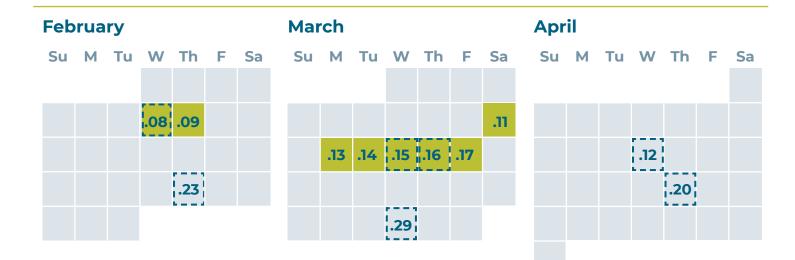
# **04.20** □ In the Know on No-Rise 1:00 PM - 2:00 PM

NeDNR's Jamie Reinke, PE, CFM, will explain the Nebraska's no-rise certification process. Including the what, when, and why of this necessary and important component of permitting development within the regulatory floodway. 1 CEC available for for eligible CFMs and NFIP community treasurers. To learn more and to register, visit this link.

# 05.07 - 05.11 □ ■ ASFPM 47th Annual Conference

Raleigh, North Carolina

The ASFPM is holding its 47th yearly conference. Topics will include coastal issues, dams and levees, mapping, mitigation, the NFIP, and post-disaster recovery. To learn more, visit this link.



#### 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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