

## NEMA, USACE, NDEE, and NGPC Come Together for Lexington Event

By Elijah Kaufman

On a brisk, windy day in March, the City of Lexington became the gathering place for floodplain administrators, emergency managers, and subject matter experts in the very first NeDNR Floodplain Day. Inquisitive floodplain officials traveled from as far as Cherry County to hear industry experts talk about the importance of well-rounded floodplain, wetland, endangered species, and resource management in a mini-conference setting.

Representatives from the Nebraska Game and Parks Commission (NGPC), the Central Platte Natural Resource District (NRD), the Nebraska Emergency Management Agency (NEMA), the Nebraska Department of Environment and Energy (NDEE), and the U.S. Army Corps of Engineers (USACE) shared their invaluable

knowledge on topics integral to floodplain management.

Sessions covered:

- An overview of flood mitigation projects within the Central Platte NRD area
- NEMA's role in disaster response and recovery
- The Nebraska Endangered Species Act review process
- An introduction to the USACE Regulatory Program
- Construction stormwater permit requirements

Lyndon Vogt of the Central Platte NRD discussed the multitude of successful flood risk reduction projects within the NRD including dams, levees, diversion channels and detention cells. He went into detail about the flooding

- See [Floodplain Day](#) cont. on page 3.

## Permitting Non-Structural Development

By Chuck Chase

In our last newsletter we published an article about permitting "development" in the floodplain. To reiterate, 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 the Special Flood Hazard Area (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 in itself or by catching or collecting debris carried by such water, or that is placed where the natural flow of the*

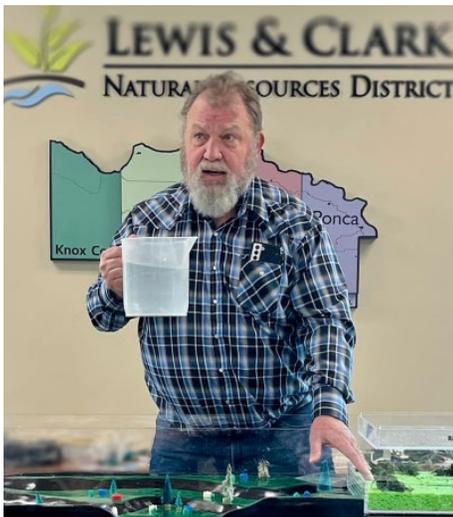
- See [Permitting](#) cont. on page 2.

Attendees gather round for the table top exercise at Floodplain Day. The exercise presented a flooding scenario for the City of Ogallala, based off of an actual flood event that occurred there in 2002. Photo: NeDNR.



### INSIDE THIS ISSUE:

- 2 [Floodplain Education in the Classroom](#)
- 4 [BRIC Application Tips](#)
- 6 [Training & Events](#)



## Bring Floodplain Education to Your Event or Classroom!

Are you looking for an interactive way to teach about flooding? Children and adults alike will enjoy using our floodplain simulation model to learn about the dangers and impacts of unplanned development and human activity in the floodplain.

Students can learn the value of wetlands and retention ponds in flood management. They can construct levees and discover how stream flow is affected, and can affect downstream communities.

If you would like us at your event, reach out to Michele York to schedule: (402) 471-1214 or [Michele.York@Nebraska.gov](mailto:Michele.York@Nebraska.gov)



Various development scenarios and their effects on flow and flood behavior can be explored using modeling clay and props representing reservoirs, wetlands, parking lots, and more. Images courtesy Ward's Science.

NeDNR's Chuck Chase provides a floodplain model demonstration to NRD information and education staff on March 30, 2023, at Lewis & Clark NRD office in Hartington, Nebraska. Photo: Megan Grimes.

**Permitting** cont. from page 1.

*water would carry such structure or matter downstream to the damage or detriment of either life or property.”*

Note that of the nine items specifically listed in 44 CFR §59.1 as “development” and the 21 items listed in §002.16 of the State’s minimum standards, only one item in each is a building. If someone is doing earthwork in the SFHA, drilling a well, mining gravel from a sandpit, or if the county is placing gravel or a new culvert, then these activities constitute development and must go through the appropriate permitting process.

As stated in the January article, protecting life and property are your main goals. You must ensure you have a complete application package before you permit any development, and you must maintain the records after. This remains true for permitting non-structural development. As with structures, work in the floodway is required to have a no-rise certificate from an engineer. Any work within Zone A must demonstrate that it will not cause an unacceptable rise, and a foot or more of rise is always unacceptable.

The following is a non-exhaustive list of possible non-structural development and items to consider when reviewing non-structural development types.

### Storage of Materials

Material stored in the floodplain must be anchored to prevent flotation. Pictures of the anchoring and possibly engineering data to demonstrate that the anchoring is sufficient may be required. Even non-buoyant materials, like irrigation pipes, can be carried down river in a flood and pile up at a bridge or do damage to other structures along the way. If material is to be stored in the floodplain, it must

be anchored to prevent buoyancy or lateral movement.

### Wells and Water Systems

To be blunt, floodwater is full of pollutants. You need to prevent cross contamination to your community’s water. Survey data may be required to demonstrate that the well head is elevated above the BFE. Pictures of the bentonite skirting used to prevent washout next to the well pipe should be requested. Plans, including details of the gravel filter pack, casing, and curb stop are also necessary.

### Septic Systems

Many communities prohibit septic systems within the floodplain. This is more difficult for rural jurisdictions. To prevent cross contamination, septic systems must be designed with backflow protection to prevent the entry of septic product into the floodwaters. A septic system must be permitted by NDEE before the floodplain development permit is approved. Sewage lagoons and cattle run-off lagoons, must be designed so that the berms are at least one foot above the BFE. Post construction survey data is required to document that the berm heights meet this specification.

### Earthwork

All plans for non-structural development—including simple earthwork—must show that the development will not cause an unacceptable rise in the floodwaters. Look for possible adverse effects to the neighboring properties or to any community infrastructure, such as roads or bridges. Feel free to require an engineer to address effects of the development during a 1% annual chance flood event regarding specific homes, bridges, or any other concern in the area.

- See **Permitting** cont. on page 3.

**Floodplain Day** continued from page 1.

challenges that municipalities face, and how the NRD's flood mitigation projects have successfully reduced the impacts of flooding for many. To learn more, visit the [Central Platte NRD "Projects Built" page](#).

Chelsea Harris, Erica Wertz, Grace Fennelly, and Grant Ottinger of NEMA reviewed the role that the State plays in emergency management. The team covered preliminary damage assessments, hazard mitigation funding, and information on State-led flood mitigation projects.

Melissa Marinovich with the Planning and Programming Division of the NGPC gave a brilliant presentation on the importance of consulting with the NGPC to ensure permitting actions will not jeopardize the existence of protected species. Permitting officials can go to the new [Nebraska Conservation and Environmental Review Tool \(CERT\) to request a review](#) within a project area.

Matt Wray with the USACE Regulatory Program gave their perspective on the types of permits floodplain officials need to be aware of, including permits within Section 404 of the Clean Water Act and receiving Section 408 permission if a project is in the vicinity of a federal flood control project.

Reuel Anderson with NDEE discussed the regulations regarding construction storm water management under the National Pollutant Discharge Elimination System. These regulations relate to any construction projects greater than one acre and can help floodplain administrators manage the drainage from construction activity. To learn more about the Construction Stormwater Permit process, [visit the NDEE webpage](#).

Over the course of 5 hours, attendees were immersed with a wealth of information and resources to broaden their knowledge and capabilities in

floodplain management. The NeDNR floodplain team greatly appreciates the time and effort that these dedicated instructors invested in educating floodplain officials from across the State.

### Tabletop Exercise

The day's overabundance of information was capped off with a newly-developed Homeland Security Exercise and Evaluation Program (HSEEP) Tabletop Exercise hosted by the NeDNR floodplain team. Given floodplain administrators' integral involvement in the disaster response and recovery processes within their communities, it is vital they understand how to fulfill their responsibilities within the community's incident command system.

This tabletop exercise encouraged floodplain administrators to study a disaster scenario from a holistic perspective to better understand how their duties interconnect with those of the emergency manager, utilities director, fire and police response, volunteer groups, and many other entities. The after-action discussions revealed that participants greatly enjoyed the interactivity of the exercise modules, as well as the networking opportunities with their fellow classmates. The NeDNR floodplain team hopes to host this exercise routinely in the coming years.

### Thank You

Thank you to all who attended the first ever NeDNR Floodplain Day, as well as those who attended the previous day's floodplain workshop. Well-educated floodplain managers are a vital component to ensuring safe development in the floodplain, and we appreciate all who made the time to learn more about the practice. We would also like to thank the City of Lexington and the Dawson County Opportunity Center for hosting the event at their wonderful venue. ■

**Permitting** continued from page 2.

### Other Permits

You are required to ensure that all necessary permits have been obtained before permitting any development. We have mentioned NDEE permitting of septic systems. If more than 1 acre is disturbed, a Construction Stormwater Permit (CSP) is required from NDEE. You may also want to check with the Nebraska Game and Parks Commission regarding Nebraska's endangered species, and the U.S. Army Corps of Engineers (USACE) if rivers may be affected. Wetland impacts are a concern and USACE and the Natural Resource Conservation Service (NRCS) should be consulted. There are a variety of permits that may need to be pursued.

As you can see, permitting non-structural development is about ensuring that there is not an unacceptable impact on the community's infrastructure, the environment, or the surrounding residents and their properties. Since the development is not a structure, there is no lowest floor to elevate and therefore no elevation certificate is required. Yet, topographic survey and engineering documentation is almost always required.

There are many more facets to permitting development in the floodplain which we plan to cover in the future. Until then, please always feel welcome to [contact us](#) with any of your permitting questions. ■

### 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)

## Tips for Stronger BRIC Grant Applications

By Adele Phillips

NeDNR staff recently participated in the Fiscal Year 2022 Building Resilient Infrastructure and Communities (BRIC) National Review Panel. Panelists from across the United States and territories reviewed over 300 subapplications in 3 weeks. After completing training, panelists scored subapplications for how well the 6 qualitative BRIC criteria were met by each application. These criteria are:

Criteria	Max Point Value
1. <b>Risk Reduction / Resiliency Effectiveness</b>	35
2. <b>Population Impacted</b>	25
3. <b>Climate Change and Other Future Conditions</b>	20
4. <b>Implementation Measures</b>	15
5. <b>Leveraging Partners</b>	15
6. <b>Community Engagement and Other Outreach</b>	5

After reading through many proposals, we offer the following advice to help strengthen your next grant application:

**Don't leave points on the table.** Attempt to address each criteria, even if you may not have the strongest data or argument for that specific item. A minimally-discussed criteria is worth more points than it having not been addressed at all.

**Connect the dots for the reader.**

Do not assume that the reviewer has expertise or experience with the hazard being mitigated, so be sure to write a proposal that is free of jargon and is at an approachable technical level. Do not assume that the positive impacts of a project are self-evident.

Make sure there are clear connections between the proposed activity and the intended benefits, as well as ancillary benefits. When describing the community or percentage of population that will benefit from a proposal, be very transparent about how the benefiting population was derived, and how they will directly benefit from the proposal. Four of the 6 criteria reflect the need for subapplications to speak to how the project will benefit disadvantaged communities.

**Refine your content.**

There will be areas in which information must necessarily be repeated, however, do keep extraneous content out of your application. Have the information concisely written and well-organized. Do not make reviewers hunt for the information needed to justify the awarding of points. When referencing reports or existing long range planning documents, do not attach the entire plan. Extract the pages that contain content relevant to the application and append these refined documents to your application.

**Details matter.**

The scope of work section of the application is where an applicant can really shine by demonstrating that they have fully considered the project's implementation. Including such items as the biographies and resumes of the staff who will be involved, any preliminary cost estimates, and community survey results provide evidence supporting the project. Be as detailed in the timeline as possible, breaking the project into realistic phases and tasks. Doing so is further evidence that you understand the scope of the proposal and realities of implementation.

**Acknowledge hurdles.**

Demonstrating that a project has considered potential hurdles or roadblocks and planned accordingly is more convincing than a proposal that does not acknowledge the potential for any delays or obstruction. A project that considers contingencies

and allows buffers for project delays demonstrates greater feasibility than a proposal that does not.

**Attach supporting data.**

Fully utilize the power of adding supporting data. Supporting documents can be used to further discuss and demonstrate meeting the qualitative requirements in a way that the FEMA GO response fields cannot. This is an opportunity to include photos and graphics that enhance and support narrative details. When attaching supporting documentation, state in the application narrative text 1) that the attachment has been included, and 2) why it is relevant to the application. Make certain that file names are descriptive of the content held within and populate the "description" field in FEMA GO with further context.

**Demonstrate prior success.**

Illustrate that your team or agency has successfully implemented similar or related projects. Doing so supports your argument that you have the experience to successfully manage and execute the proposed project. If your proposal is particularly innovative in concept, it is important that some evidence of successful proof-of-concept be provided.

**Review for consistency.**

Grant application submissions are lengthy and invite opportunity for inconsistencies in statements. Make sure to review your application to ensure that proposed quantities and processes or assigned responsibilities are uniform throughout. It helps to have a sole primary author on a proposal to lend consistency to the voice and terminology of the narrative. Further, we recommend that you fully assemble your proposal narrative outside of the FEMA GO portal, before beginning the process of populating the application fields.

Please reach out to us with any questions as you develop your flood mitigation grant proposal. We are happy to offer advice and hope to see more flood mitigation in Nebraska. ■

## Mark Your Calendar

### 04.26 □ Getting Started with Community Rating System (CRS)

1:00 PM - 2:00 PM

Join FEMA Region 7's Todd Tucker, NeDNR's Adele Phillips, and Gene Kohls with Insurance Services Office (ISO) for an informative 1-hour virtual class on the fundamentals of the CRS program for floodplain administration. The course is suitable for floodplain administrators and any community officials. 1 CEC available for eligible CFMs and Nebraska NFIP community treasurers. To learn more, visit this [link](#).

### 05.15 - 05.16 ■ 2023 Tools of Floodplain Management

Jefferson City, MO

Additional offerings: July 19-20 and Sept. 21-22, 2023.

The 2023 Tools of Floodplain Management workshop is a 2-day course designed for local floodplain administrators. It covers various important issues as well as day-to-day activities, incorporating updated NFIP information and forms. This course is designed to provide basic knowledge of the National Flood Insurance Program (NFIP). 9 CECs available for eligible CFMs. To learn more and to register, visit this [link](#).

### 04.26 □ Substantial Damage Estimation Overview

9:00 AM - 11:00 AM

This class is for officials responsible for conducting or delegating substantial damage assessments after flooding or any other damage to structure in the floodplain. This class will give an introduction and overview of FEMA's Substantial Damage Estimator software and how it can be used to produce consistent, organized, and defensible damage assessments. Download of the software is not required. 2 CECs available for eligible CFMs. For more information and to register, please visit this [link](#).

### 05.17 - 05.18 ■ Intro to the CRS Program 2-Day Workshop

8:30 AM - 4:30 PM

Lincoln, NE

Join representatives from FEMA's CRS team and Region 7 to get started in the Community Rating System (CRS) Program with a FREE two-day workshop. In CRS communities, flood insurance premium rates can be discounted up to 45%. 12 CECs available for eligible CFMs and Nebraska 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 annual conference. Topics include coastal issues, dams and levees, mapping, mitigation, NFIP, and post-disaster recovery. To learn more and to register, visit this [link](#).

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

9:00 AM - 5:00 PM

Various MO locations

Additional offerings: July 13, Aug. 24, and Sept. 24, 2023.

When structures located within the Special Flood Hazard Area (SFHA) are improved or damaged, an inspection by the Floodplain Administrator must be made. FEMA has developed an excellent software tool, SDE 3.0, to assist local officials. Missouri State Emergency Management Agency (MoSEMA) 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. 6 CECs available for eligible CFMs. To learn more, visit this [link](#).

**Mark Your Calendar Cont.**

**05.25** □ **Mitigation Concepts and Funding**

1:00 PM - 2:00 PM

Join NEDNR and Nebraska Emergency Management Agency (NEMA) staff for an informative 1-hour virtual class on mitigation measures and funding opportunities available. This class is suitable for both notice and seasoned floodplain administrators as well as mitigation project stakeholders. 1 CEC available for eligible CFMs and Nebraska NFIP community treasurers. To learn more and to register, visit this [link](#).

**05.25** □ **Preparing for Post-Disaster Responsibilities**

11:30 AM - 12:30 PM

Join Missouri State Emergency Management Agency (MoSEMA) floodplain staff for a one-hour webinar where you can listen while you have your lunch. 1 CEC available for eligible CFMs. To learn more and to register, visit this [link](#).

**06.06** ■ **Recovery from Disaster: Local Community Role**

Grand Island, NE

An introduction to disaster recovery principles, including current recovery practices and policies. A variety of resources for recovery planning are provided and taught in the course, including a FEMA online Community Recovery Management Toolkit (CRMT) containing links to model plans, templates, tools, lessons learned, best practices, and a range of supplemental reference materials and related pre-disaster planning and disaster recovery resources. To learn more and to register, visit this [link](#).

**06.07** □ **Virtual Office Hours: Floodplain Q&A**

12:00 PM - 1:00 PM

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](#).

**06.27 - 06.29** ■ **G-0393 Mitigation For Emergency Managers**

8:00 AM - 5:00 PM

This course is designed to enable the non-technical emergency worker to acquire skills in the use of mitigation. The course provides training in how to perform mitigation activities fundamental to reducing and eliminating long-term risk from hazards. It addresses the important roles of the emergency program manager in mitigation: motivator, coordinator, and monitor in local implementation of the National Mitigation Strategy. To learn more and to register, visit this [link](#).

**07.20** ■ **NeFSMA Annual Conference**

Kearney, NE

2023 NeFSMA Annual Conference will be held at the Younes Conference Center South in Kearney, Nebraska on July 20, 2023. More details will be found on the NeFSMA website in the coming weeks. To learn more, visit this [link](#).

**May**

Su	M	Tu	W	Th	F	Sa
.07	.08	.09	.10	.11		
	.15	.16	.17	.18		
			.24	.25		

**June**

Su	M	Tu	W	Th	F	Sa
		.06	.07			
		.27	.28	.29		

**July**

Su	M	Tu	W	Th	F	Sa
			.12			
				.20		

## 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>

### Contact:

Jamie Reinke, PE, CFM	Section Leader, Interim State NFIP Coordinator	(402) 471-3957
Adele Phillips, CFM	Floodplain Mitigation Planner	(402) 471-9252
Chuck Chase, CFM	NFIP & Outreach Specialist	(402) 471-9422
Elijah Kaufman, CFM	NFIP & Mitigation Specialist	(402) 471-0640
Jared Ashton, PE, CFM	Project Engineer	(402) 471-0500
Stefan Schaepe, PE, CFM	Project Engineer	(402) 471-0644
Deanna Ringenberg, PE, CFM	Project Engineer	(402) 471-1221
Jeehoon Kim, CFM	Floodplain Mapping Specialist	(402) 471-1223
Ryan Stastny, CFM	Floodplain Mapping Specialist	(402) 471-2243
Karl Merchant	Floodplain Mapping Specialist	(402) 471-2240
Harrison Jones	Floodplain Mapping Specialist	
Beca Podariu	Environmental Specialist	
Asa Brayton, CFM	Outreach Specialist	(402) 471-0572
Michele York	Administrative Assistant	(402) 471-1214
Shuhai Zheng, Ph.D., PE, CFM	Division Head, Engineering Programs & Services	(402) 471-3936

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.