

Quarterly Newsletter

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DEPT. OF NATURAL RESOURCES



Ostdiek and Reinke Receive Excellence in Leadership Awards

With more than 30 years of field office experience, **Jim Ostdiek** has a depth of knowledge of water administration that has enabled upgrades to a number of processes and computer-based applications that are central to NeDNR's mission. This forward thinking inspired Jim to improve the

Platte Water Accounting Program (PWAP), a program that tracks and apportions natural flow and storage water from the Platte River to its users. With Jim's leadership, our team worked to integrate the old program with NeDNR's real-time streamgaging data network. Aligning these two resources

saves time and produces a better product. In addition to the PWAP program, Jim was also instrumental in bringing our new surface water right noticing program to life. The enhancement of this program allows for the tracking and reporting of the issuance of surface water right administrative notices, developed to enforce the prior appropriation doctrine used in Nebraska. Jim has also led by example in seeking training opportunities to enhance his skill set and graduated from the State's Leadership Program in the fall of 2017.



Jim Ostdiek, Jamie Reinke, and Director Jeff Fassett

Continued on Page 2

Excellence in Leadership Continued

During the March floods, **Jamie Reinke** immediately started thinking about what would be needed for current and future mapping of the flooding area. She researched articles and collected data and began organizing the information. Jamie worked in partnership with

NeDNR's survey section, U.S Geological Survey, U.S. Army Corps of Engineers, and Natural Resource Districts. As soon as the Joint Field Office, the temporary multi-agency coordination center) was established, she started working on a mission

assignment to collect high water marks, cross sections, LiDAR, and Ortho-photography. It is because of these efforts that we have the data to map the March event and to collaborate in future modeling and mitigate flood risk in these areas.

Since joining the floodplain management team in 2016, Jamie has taken over the floodplain mapping program that maps flood risks in the state. She works with other engineers, GIS technicians, and planners to provide communities with flood risk information.

Jamie has also completely transformed NeDNR's internal engineering review processes. Throughout the process, she collaborated with her staff, and together they have made additional changes based on experience and lessons learned. Jamie is extremely hard working and leads the team by example.



Jim Ostdiek and Jamie Reinke

Voluntary Water Use Reporting

By Jeremy Gehle

Everyone knows how important water is to Nebraska. At the Department of Natural Resources, we are continually working hard to improve the ways we manage and forecast water needs across the state.

Beginning in 2013 we began asking users of surface water (water from a river, stream, lake, or pond) in selected river basins throughout the state to participate in our Voluntary Water User Reporting program. Since the winter of 2016, the Voluntary Water Use Reporting program was available to all surface water users in Nebraska.

The Voluntary Water Use Reporting program utilizes an online survey tool that the Department developed. When harvest is over, the Department mails individual PIN numbers to the owners and operators of their respective surface water appropriations. These PIN numbers are

used to log in to the online survey tool. The survey tool asks for series of basic information including the number of acres irrigated with surface water, type of distribution system, crop type, if conservation tillage is practiced, and if groundwater (water from a well) is used in conjunction with surface water. There is also a field for surface water users to enter the readings from their meters if there is one present. In the Republican River basin where reporting is mandatory, the meter readings must be filled out.

The overall response rate to this voluntary reporting request has been tremendous, and further illustrates the commitment that Nebraskans have for maintaining a sustainable water supply for generations to come. This online survey tool is another step that the Department is taking to enhance management and oversight of surface water throughout our state.

NeDNR Celebrates Halloween



Left: Several team members came dressed in costumes.

Right: Costume Contest winner Ron Theis as the third Blues Brother, Rock Island Ron.



Fifteen Years of CREP

By Susan France

The Nebraska Platte-Republican Conservation Reserve Enhancement

Program (CREP) is in its fifteenth year. At the inception of this voluntary water use reduction program, the idea was that the program would just be a 15-year program. However, the program, while never fulfilling its original goal to get 100,000 acres of irrigated land out of production for ten to fifteen years, has been found to be popular and very useful in both the Republican River Basin and the North Platte, South Platte, and Platte River basins for reducing water use and improving water quality. The reduction in irrigated acres is helpful to the State of Nebraska in meeting Republican River Compact compliance and in meeting the State's requirements under the Platte River Recovery Implementation Plan.

The original appropriation for the Nebraska Legislature to run the program was \$5,000,000. This was to match monies spent by the federal government for the conversion of irrigated ground to a more natural cover crop for wildlife at the beginning of the CREP contract. The acres that are voluntarily placed into the CREP by the farmers and ranchers also receive a

yearly rental payment per acre from the federal government bringing more money into the state.

The program was modified in 2016 to allow for re-enrollments of acres that would otherwise come out of the original CREP contracts. Re-enrollment has been very successful for the last two years. However, in September 2020, over half the acres currently enrolled under the CREP will expire. The Department is working with the U.S. Farm Service Agency, the local natural resources districts, and other CREP partners to try to maintain this program at its current level through the coming year.

A new federal farm bill was passed in 2018 and once the FSA has announced how this bill will affect the program and their new rules under the program, additional public information and news releases will go out informing the public of what will be available for re-enrollments and for new CREP contracts going forward. The new rules are expected later this year.

Below is a table showing the current participation (as of September 30, 2019) in the CREP. There are a little more than 27,000 acres under contracts that are set to expire next September 30.

THE BASIN NAME	APPROVED APPLICATIONS	GW ONLY ACRES	SW ON-LY ACRES	COM-MINGLED ACRES	TOTAL IRR. ACRES	NON IRR. ACRES	TOTAL ACRES
Platte Basin Below Lake	38	1,224.67	318.44	461.07	2,004.18	0.70	2,004.88
Platte Basin Above Lake	101	2,094.74	3,340.83	275.5	5,711.07	19.10	5,730.17
Republican	356	27,156.82	4,312.15	4,162.8	35,6631.77	1,497.43	37,129.2
TOTALS	495	30,476.23	7,971.42	4,899.37	43,347.02	1,517.23	44,864.25

Levee Repair Groundbreaking

By Kent Zimmerman

On October 15th, 2019, Governor Ricketts and other dignitaries assisted Papio-Missouri River Tributaries Natural Resources District (P-MRNRD) General Manager John Winkler, staff and board members in a ceremonial ground breaking to commemorate the beginning of repairs and improvements to levees damaged during the 2011 flooding along the Missouri River, Papio Creek and Platte River; some of which (R-613 & R-616) protect Offutt Air Force Base.



Partial funding for the levee repairs and improvements has been provided by the State of Nebraska and made available through the Critical Infrastructure Facilities Fund (C.I.F.).

The C.I.F. was created by LB 957 in FY 2016 and funded by a \$13.7 million transfer from the Cash Reserve Fund on June 30, 2016. Administration of this fund was assigned to

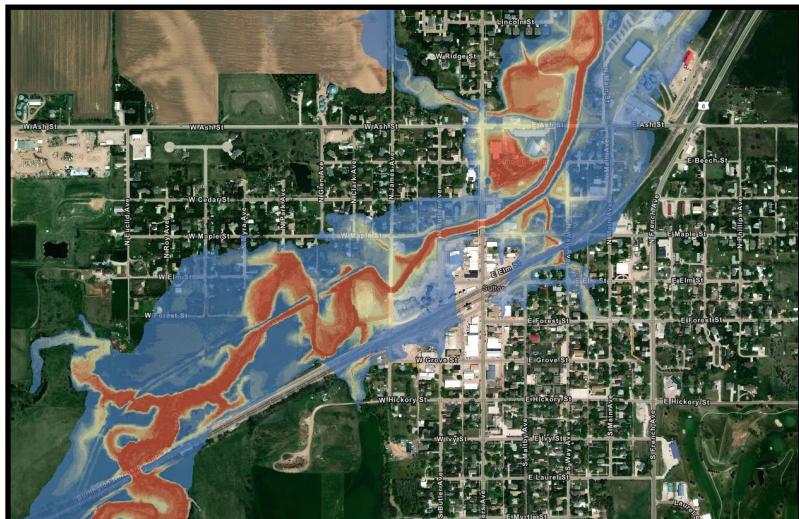
the Department, with statutory instructions to use the C.I.F. fund to provide grants to an NRD to offset costs related to soil and water improvements intended to protect critical infrastructure facilities within the NRD, which includes military installations, transportation routes, and wastewater treatment facilities. The PMRNRD submitted an application for a \$13.7 million grant to help offset costs associated with its Offutt Air Force Base levee project and the application was immediately approved. Work on this project has been hampered by the length of time it took to obtain a U.S. Army Corps of Engineers permit and the repeated spring 2019 flood events.



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 Risk Mapping Assessment and Planning (Risk MAP) Program. 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.



Flood risk product depth grid.

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. The watershed-wide components include creating non-regulatory flood risk products. The Flood Risk Products provide additional information related to a property's or community's flood risk, such as flood depths. All communities throughout the watershed are part of the community engagement process for these

projects. At the county level, regulatory Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FIS) are produced as part of a Risk MAP project.

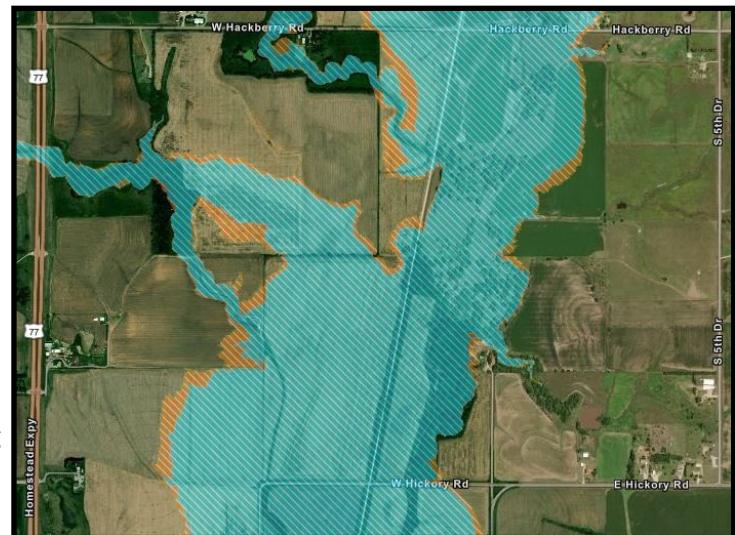
The FY2018 provided funding to NeDNR to complete tasks for the following projects:

- Middle North Platte – Scotts Bluff - Data Development – 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.
- Lower Elkhorn – Data Development – NeDNR received funding to

Flood Studies Continued

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) needs to be acquired to accurately map this watershed. NeDNR is working with FEMA, USACE, and USGS to find a funding source for this data.

- Lewis & Clark Lake – Data Development – NeDNR received funding to complete 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 will also create flood risk products for the watershed.
- 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 also complete enhanced studies for Pierce and Norfolk. Flood risk products will be created for the watershed as well.
- 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 also be created. However, 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) needs to be acquired to accurately map this watershed. NeDNR is working with FEMA, USACE, and USGS to find a funding source for this data.
- Logan – Regulatory Products – NeDNR received funding to create regulatory products, including Flood Insurance Rate Maps and a Flood Insurance Study Wayne County. • Upper Little Blue – Regulatory Products – 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 – Discovery and Base Level Engineering – NeDNR finalized the Discovery Report and the Base Level Engineering within the watershed.



Flood Awareness Area available on NeDNR's Interactive Map.

Flood Studies Continued

The boundaries are available in the Flood Awareness Area layer on the Floodplain Management Interactive Map (<http://maps.nebraska.gov/dnr/floodplain>). Figure 3. Flood Awareness Area available on NeDNR's Interactive Map.

- Turkey - Discovery and Base Level Engineering – NeDNR finalized the Discovery Report and the Base Level Engineering within the watershed. The boundaries are available in the Flood Awareness Area layer on the Floodplain Management Interactive Map (<http://maps.nebraska.gov/dnr/floodplain>).
- Big Nemaha - Discovery and Base Level Engineering – NeDNR received funding to complete the Discovery Report and the Base Level Engineering within the watershed.
- South Fork Big Nemaha - Discovery and Base Level Engineering – NeDNR received funding to complete the Discovery Report and the Base Level Engineering within the watershed.

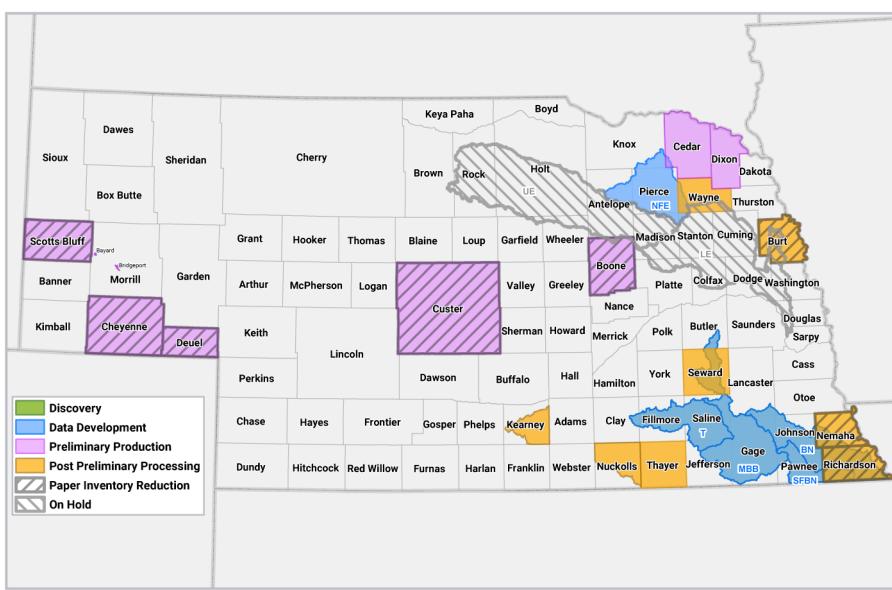
During this grant period, we also continued studies in several counties as part of a Paper Inventory Reduction (PIR) project. PIR projects are similar to Risk MAP projects, but have the goal of reducing the amount of paper FIRMs still in effect for counties. We are currently working on Data Development for PIR projects in Cheyenne, Deuel, Scotts Bluff, Custer, and Boone Counties. We are working on regulatory phases for Burt, Nemaha, and Richardson Counties.

During the FY19 grant period, we will be working on the following Risk MAP projects:

- Middle Big Blue – Data Development - NeDNR received funding to complete Zone A floodplain boundaries for the watershed based on the results of the base level engineering boundaries that were created as part of our FY2018 grant. NeDNR will complete enhanced studies in Saline County, Beatrice, Blue Springs, Crete, DeWitt, and Wilber. NeDNR will also create flood risk products for the watershed.
- Turkey – Data Development - NeDNR received funding to complete Zone A floodplain boundaries for the watershed based on the results of the base level engineering boundaries that were created as part of our FY2018 grant. NeDNR will also create flood risk products for the watershed.
- South Fork Big Nemaha – Data Development - NeDNR received funding to complete Zone A floodplain boundaries for the watershed based on the results of the base level engineering boundaries that were created as part of our FY2018 grant. NeDNR will also create flood risk products for the watershed.

Flood Studies Continued

- Big Nemaha – Data Development - NeDNR received funding to complete Zone A floodplain boundaries for the watershed based on the results of the base level engineering boundaries that were created as part of our FY2018 grant. NeDNR will complete enhanced studies in Firth and Tecumseh. NeDNR will also create flood risk products for the watershed.
- Lewis & Clark Lake – Regulatory Products – NeDNR received funding to create regulatory products, including Flood Insurance Rate Maps (FIRMs), a Flood Insurance Study (FIS), and other similar products for Cedar County and Dixon County.
- Middle North Platte – Scotts Bluff – Regulatory Products - NeDNR received funding to create regulatory products, including Flood Insurance Rate Maps (FIRMs), a Flood Insurance Study (FIS), and other similar products for Bridgeport and Bayard
- 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.



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 and funding full mapping projects to effective status will depend on future federal funding.