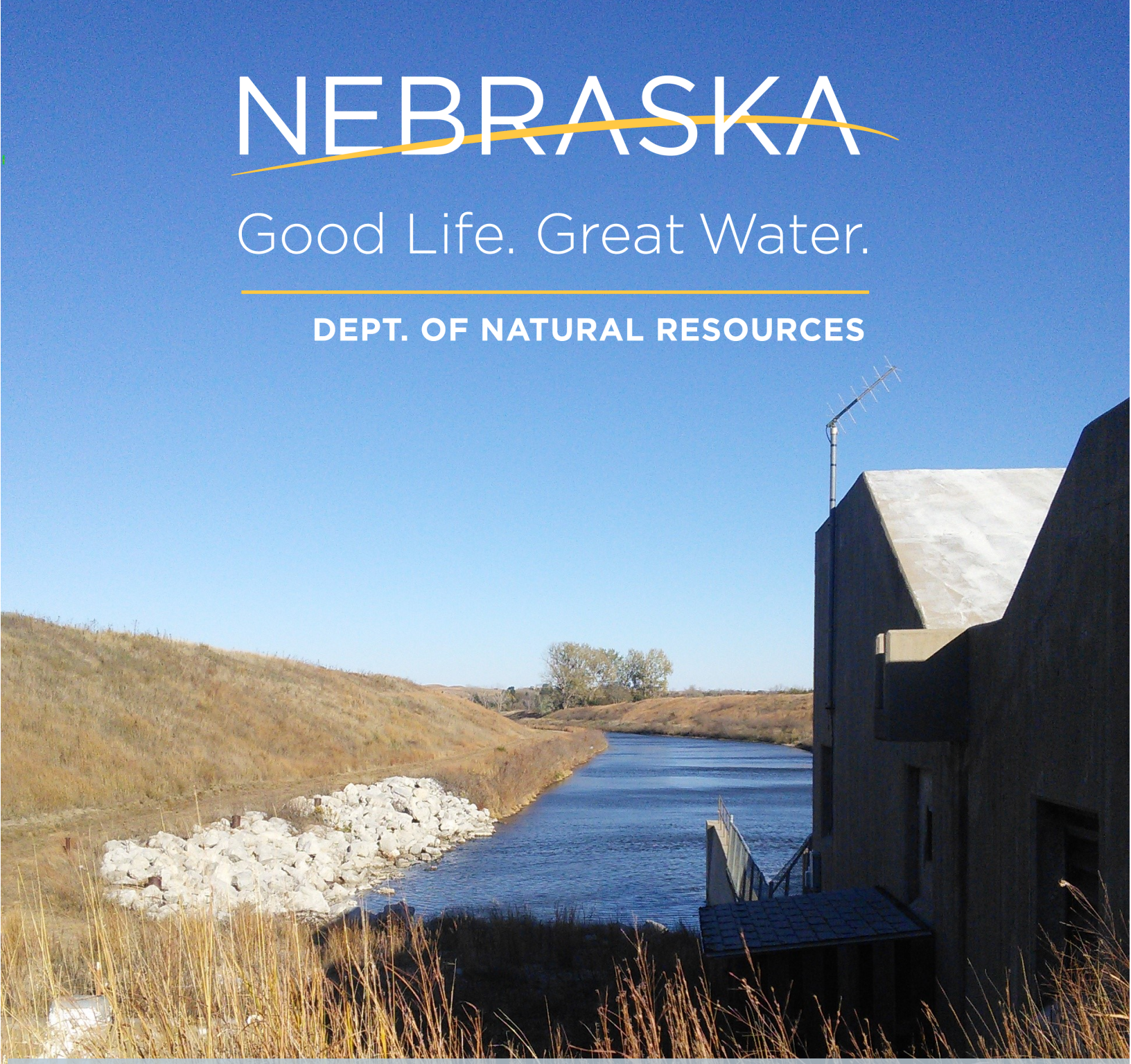
NEBRASKA

Good Life. Great Water.

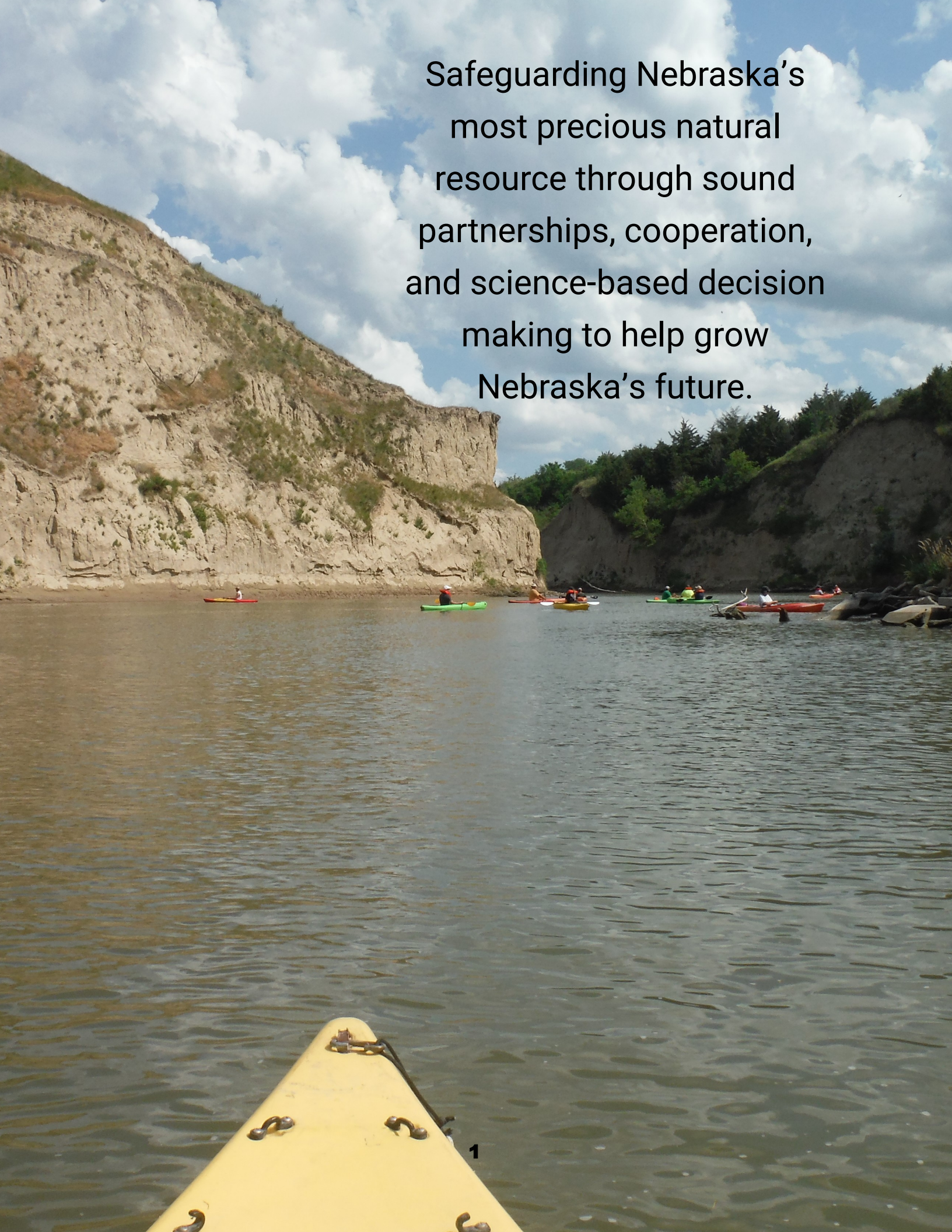
DEPT. OF NATURAL RESOURCES



DEPARTMENT OF NATURAL RESOURCES

ANNUAL REPORT TO THE LEGISLATURE

Fiscal Year 2020-2021


Safeguarding Nebraska's
most precious natural
resource through sound
partnerships, cooperation,
and science-based decision
making to help grow
Nebraska's future.

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Director’s Letter

Fiscal year 2020/2021 has been filled with challenges. From a global pandemic, to temporarily relocating our operations in preparation for an upcoming move, the teammates in our agency have demonstrated an unwavering commitment to fulfilling the department’s mission. Through their determination we have been able to meet our goals as a department and further our mission.

We have creatively used technology to reach out to our stakeholders and collaborate with one another with a resolve to remain a cohesive and productive team.

These challenges have provided us with the opportunity to reevaluate how we do business presently and in the future. We will continue to use technology in new and innovative ways to become more efficient and effective in collaborating with partner agencies and our team members.

What lies ahead in this report are examples of how we have worked over the past year to continue to achieve our guiding goals. You will learn about collaborations with partner agencies, such as the 23 Natural Resources Districts (NRDs).

These examples show how we are able to gather and compile a broad base of water-related data for use by The Department of Natural Resources, other state and federal agencies, and stakeholders in making decisions about the use of water in Nebraska.

You will see how we work daily to protect our most-valued natural resource, water, to ensure that all users are able to meet their needs today and tomorrow.

Thank you for taking a look into how we have satisfied our goals that aid in the protection of water for agricultural, our communities and industries, wildlife and the environment, and recreational users.

Thomas E. Riley, P.E.

DEPARTMENT GOALS & ACHIEVEMENTS

Department goals are NeDNR's measurable objectives that are indicative of our long-term goal to protecting and managing the State of Nebraska most precious resource, water. The following will showcase a few of NeDNR's program milestones that were achieved in the past year to achieve our long-term goals through cooperation and science-based decision making.

AGENCY GOAL

Establish strong state leadership, involvement, and support for science-based decision making that is necessary to sustain state and local water management outcomes.

Continued Education

Ensuring that NeDNR staff are experts in their field of practice is a priority for leadership. Staff are encouraged to take advantage of learning opportunities. During fiscal year 2020-2021, NeDNR staff logged more than 2,100 hours of training.

NeDNR provides a variety of training opportunities to team members to ensure that they remain experts in their respective fields. NeDNR staff often lead training seminars for other scientists and partnering agencies across the state.

Total Training Hours

2,128

Support continued training for staff to remain experts in their field of practice.

Collaboration is Crucial

NeDNR works collaboratively on drought tabletop exercises

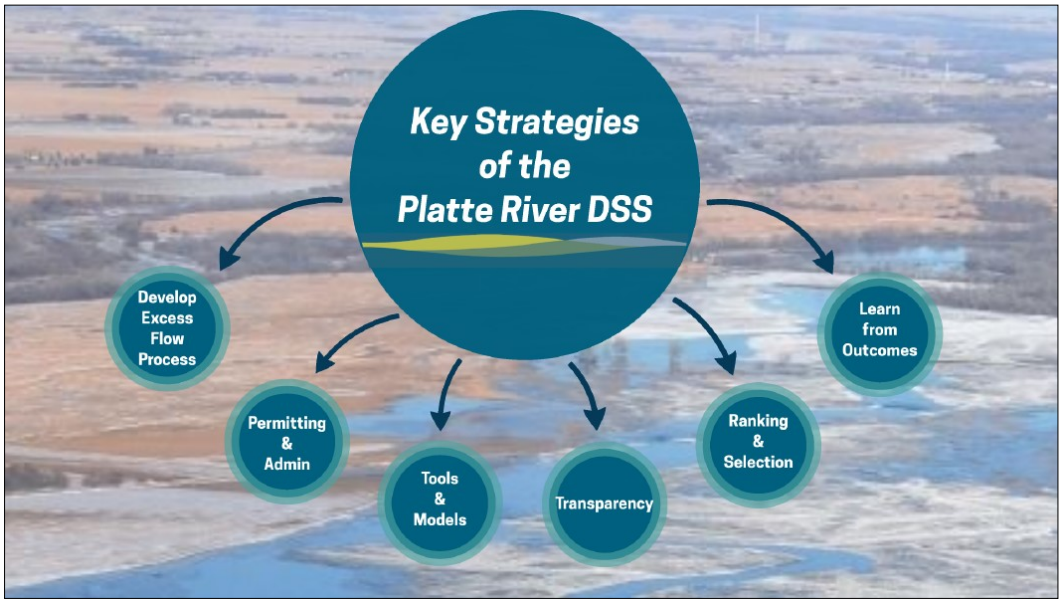
In the Republican River Basin, NeDNR has worked with the National Drought Mitigation Center (NDMC) and a Graduate Research Assistant from UNL and to develop a tabletop exercise that will focus on surface water and groundwater policy in the basin and how existing plans might guide decision making in the event of a drought. The Department has also been developing a drought monitoring dashboard that will allow users to view real-time and historical drought conditions across this and other basins.

A survey was used to gauge the severity of drought impacts on individuals living in the basin

Decision Support System constructed

A decision support system (DSS) for the Platte River Basin was constructed to provide management and administrative support for a variety of purposes, focusing initially on the use of excess flows for recharge benefits in the portion of the basin between Lake McConaughy and Duncan, but expanding to meet the needs of other objectives. DSS was designed in a way that not only helps with decision-making efforts, but also enables those decisions to be implemented in the real world, providing concrete recommendations that can be put into practice given existing legal and institutional constraints.

More than 750 hits in the first month of operation



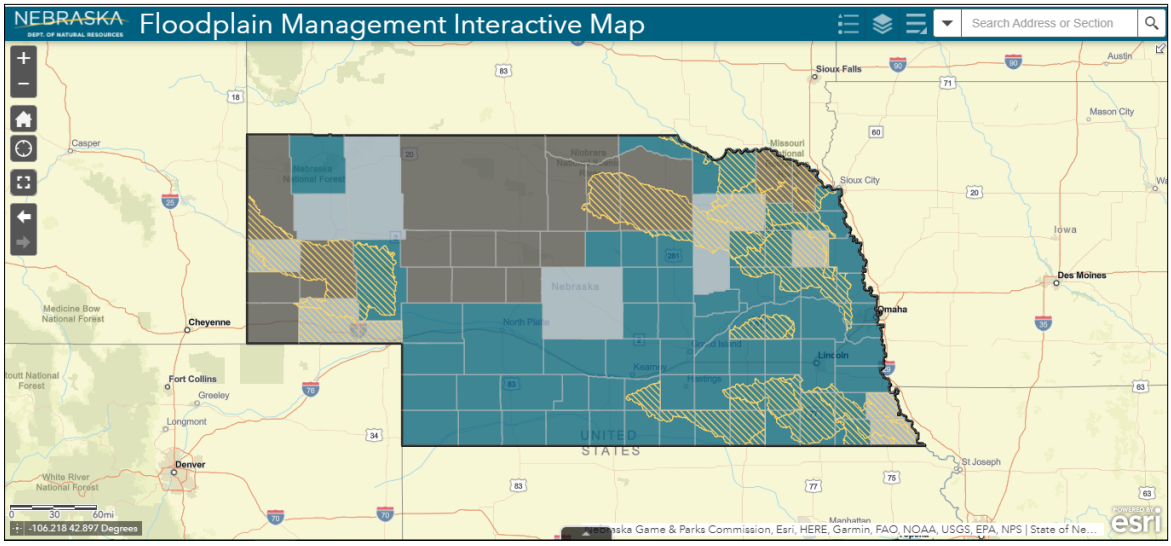
The DSS follows the standard structure of a DSS, including the use of data management and model management subsystems, and a user□friendly graphical user interface (GUI).

Work collaboratively with other partner agencies to develop and improve the "best available science" to support policy decisions

Presenting Data Efficiently

Using interactive maps is an effective and efficient way to provide important information to stakeholders.

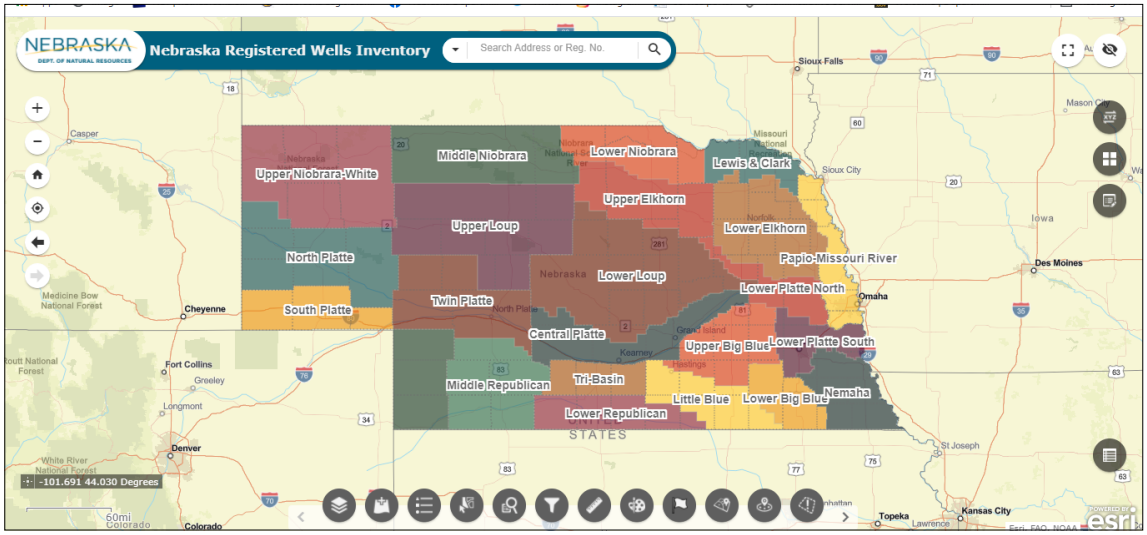
Floodplain Interactive Map



https://gis.ne.gov/portal/apps/webappviewer/index.html?id=7bc8738d3d8f4e87823cc604543b7ddf

A new Floodplain Interactive mapping application was released publicly. This version, built in ESRI's Web App Builder, combines the previous Floodplain Interactive Map, with the Flood Risk Interactive Map. This will make it easier to demonstrate flood information and risk to the public.

Groundwater Registered Well Inventory Interactive Map



https://gis.ne.gov/portal/apps/webappviewer/index.html?id=7e332656859247c9874b02c7aa1f58e8

The Groundwater Registered Well Inventory Interactive Map is one of the most accessed applications that NeDNR maintains. NeDNR worked with well drillers, NRDs, and other state agency partners to make the application more efficient and ensure access to key information for all of the user groups.

AGENCY GOALS

Provide high quality products and services through the performance of our duties in the areas of floodplain management, flood mitigation planning, dam safety, and survey to promote the safety of all Nebraskans.

Support for Local Floodplain Administrators

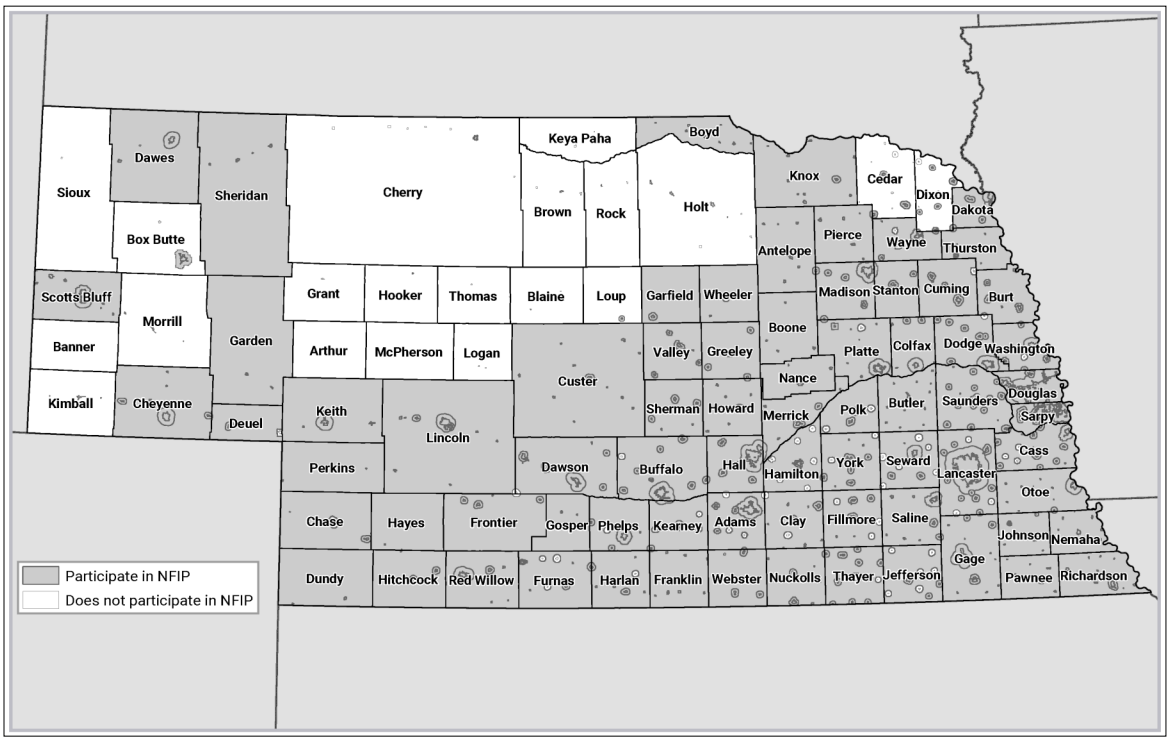
Overall Floodplain Management

The Nebraska Department of Natural Resources (NeDNR) coordinates floodplain management for the entire state. With authority designated by the Nebraska Legislature, NeDNR's vision includes identifying flood risk for every community in the state, offering technical assistance to every community, state agency, and stakeholder with an interest in reducing risks from flooding by improving floodplain management programs, and encouraging National Flood Insurance Program (NFIP) participation. This and additional information can be found in the Floodplain Story Map: https://storymaps.arcgis.com/stories/4ffba202a61942b09f447fd35776b852 .

Identifying Flood Risk to Promote Resilient Communities and Develop Mitigation Strategies

NeDNR actively seeks projects that directly reduce flood risk to human lives and property as well as outreach opportunities that engage communities on flood risk topics including Risk Mapping, Assessment and Planning (MAP) and mitigation. The Department plans for and assist communities with understanding and implementing risk reduction projects in the state by focusing on why flood risk is real and why a community should focus on reducing that risk, what kind of risk reduction project achieve a community's goals, and where and how to best implement identified projects. During the flood risk mapping process, the Floodplain team held 12 meetings that allowed stakeholders to provide input to the new risk data being produced.

Two Real Time Technical Assistance (RTTA) projects were completed. The first provided the City of Hastings, Village of Juniata, and Adams County with a few options to reducing the flood risk of targets parts of the communities. The options included increasing culvert sizes to decrease the flood depths. The other project was for the City of Chappell with an option to build a diversion channel west of town to decrease the flood risk within the City.



Support local floodplain administrators with outstanding service and continued education

Working with FEMA for Nebraska Communities

There are currently 416 communities in Nebraska participating in the NFIP including the addition in the last fiscal year of the Villages of Crab Orchard and Pleasant Dale. NeDNR supported Nebraska communities through completion of 272 Base Flood Elevation (BFE) determinations, 587 General Technical Assistance contacts (GTAs) for 174 communities, 90 Community Assistance Contacts, and Quarterly Newsletters. Floodplain Management presented on floodplain topics to several organizations including Nebraska Planning and Zoning Association, Independent Insurance Agents of Nebraska, Cooperative Technical Partners Community of Practice, Nebraska Judiciary District 7, Nebraska Department of Economic Development, Nebraska Clerk's Association, and the Department of Transportation. Starting in November 2020, the Floodplain team started providing monthly virtual trainings for local Floodplain Administrators. This program has proved to be a success as attendance is almost three times what Floodplain team was used to seeing in person. In the nine provided, NeDNR had just under 400 in total attendance.

October 27 Basic Floodplain Management: 108 participants
December 17 Permitting with Confidence: 49 participants
December 18 Permitting with Confidence: 51 participants
January 21 Floodplain Ordinance Enforcement: 43 participants
February 18 Basic Floodplain Management: 62 participants
March 18 Substantial Damage Assessment: 40 participants
April 15 Interactive Map: Your Floodplain, Online: 40 participants
May 20 Basic Floodplain Management: 30 participants
June 17 Easy as 1-2-3: How and Why to Update Your Floodplain Ordinance: 35 participants

Ensure that Nebraska's flood plain management program remains in good standing in all aspects of FEMA's National Flood Insurance Program

Collaborative Partnerships

NeDNR and NEMA share the Lead State Agency role in Silver Jackets. Through the Silver Jackets program, Nebraska has worked on a wide array of projects. Below is a summary of a few of these projects: Nebraska Silver Jackets Repetitive Loss 2.0: This project was funded in 2018. As part of the project there was a statewide evaluation of the 2018 repetitive loss properties and nonstructural assessment. This project was delayed after the 2019 flood to ensure that the correct properties were being evaluated and to determine whether the repetitive loss list changed. The project partners were NeDNR, NEMA, USACE, and FEMA.

Wood River Flood Risk Identification: This project was funded in 2019. This project updated the Wood River hydrology, while using HEC-RAS 2D to better understand the complex flow splits and sub-basin interflow. The project was conducted in parallel with a USACE Section 22 to update the Central Platte hydrology and determine whether ice impacts are a factor in this reach of the Platte River. The ice impact determination will be used to determine the influence Platte River ice events have on the Wood River, since the Platte River spills into the Wood River in multiple locations during high water events. The project partners are NeDNR, Hall County, and USACE, and USGS.

Educational Resources Toolkit: This is an ongoing project that was funded in 2019. This project aims to develop short modules and study guides, linked to state curriculum standards, which can be integrated into multiple subjects and grade levels to educate students on the dangers of moving water, historic floods, and how to avoid flood risks. The project is being piloted in the Educational Service Unit #5 region, with the goal of additional Educational Service Units implementing the curriculum in the future. The project partners are NeDNR, NEMA, USACE, FEMA, NOAA, the Nebraska Forest Service, the University of Nebraska Extension Office, ESU #5.

Little Papillion Creek Hydraulic Modeling and Mapping: This is an ongoing project that was funded in 2019. The project team will modify the existing 1D model for Little Papillion Creek and develop a 2D model near the confluence of the Little Papillion Creek with the Big Papillion Creek. The goal of the modelling effort is to better understand the flood risk from both streams at the confluence. The USGS will then incorporate the information into their Flood Inundation Mapper for public distribution. The project partners are NeDNR, Papio-Missouri River NRD, USACE, and USGS.

High Water Mark Archive: This is an ongoing project that was funded in 2019. Multiple high-water mark databases have been created by local, state, and federal partners from different geographic areas and timeframes. The project aims to compile these high-water mark databases into a single, shareable database. The project partners are NeDNR, USGS, and USACE.

Work collaboratively with governmental partners in monitoring public safety and communicate risks

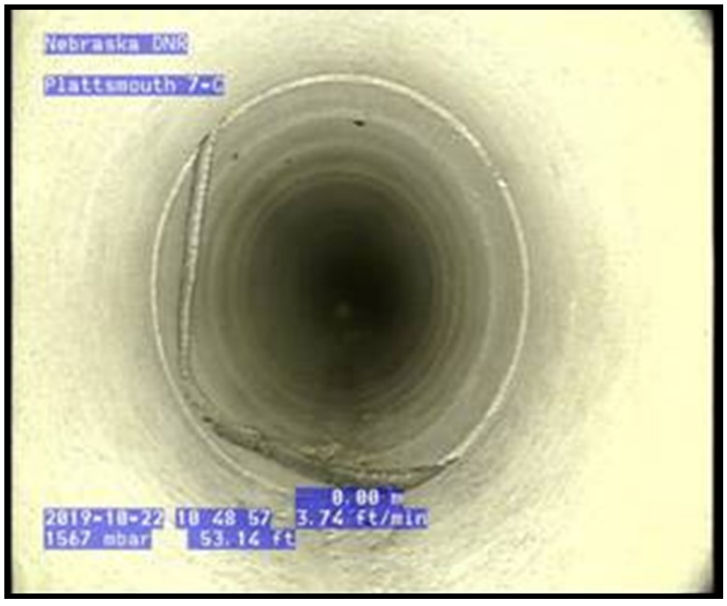
Keeping People and Property Safe

North Oak 1-A Dam

During a routine inspection, the Department found deficiencies with the North Oak Creek 1-A Dam upstream of Agnew, Nebraska. The top of the earthen dam had settled slightly, and it was found the dam could no longer pass the required design flood without flood water overtopping the dam. In extreme circumstances, floodwater overtopping the dam could lead to erosion and rapid failure of the dam. In 2020, the dam owner hired a contractor to raise the low areas along the top of the dam back to their original design elevations, thus reducing the risk of dam overtopping and failure.

Little Indian Creek Dam 15-A

The rehabilitation of Little Indian Creek 15-A Dam in Gage County was completed in September 2020 and the dam now meets high hazard potential design criteria. In 2015, the Department notified the dam owner that the dam was in poor condition, primarily due to inadequate spillway capacity. The dam owner received funding and technical assistance to reconstruct the dam through NRCS's Watershed Rehabilitation Program.



Plattsmouth 7-C Dam

During a routine inspection of Plattsmouth 7-C, the Department found a joint in the principal spillway conduit where the rubber gasket had blown out (see photo). Plattsmouth 7-C is a small, high hazard potential dam in Plattsmouth, Nebraska. With the gasket missing from the pipe joint, the earthen dam was likely to experience internal erosion which could eventually lead to dam failure. Upon being notified of the problem, the dam owner worked with the Lower Platte South Natural Resources District to fix the problem. In September 2020, the conduit was lined and sealed with a new cured-in-place pipe.

Work with dam owners to address deficiencies that may place the public or key infrastructure at risk

Emergency Action Plans

If disaster strikes and a dam fails, it is important to have a plan to quickly get people out of harms way. State statutes require that every owner of a high hazard potential dam have an emergency action plan (EAP) for their dam. These plans include maps that identify the areas downstream of the dam that need to be evacuated and notification charts to quickly alert first responders and the public of a dam related emergency. The Department contacts dam owners and reviews their EAPs to assure the plans are adequate and remain up to date.

Assist with dam related emergency preparation and response activities

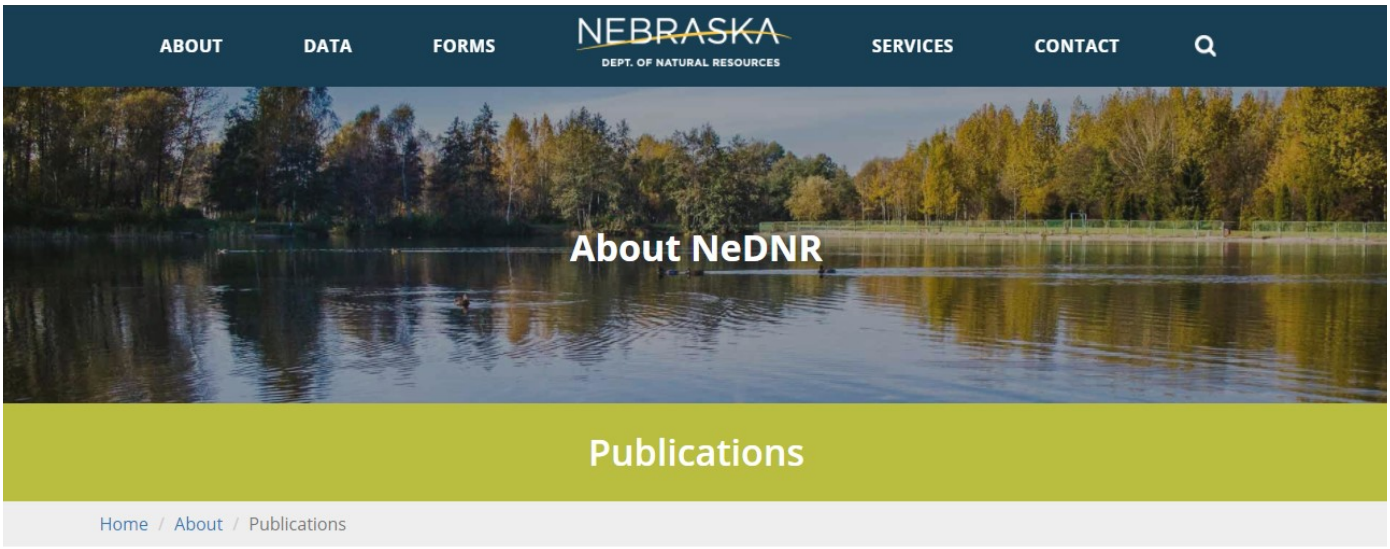
AGENCY GOAL

Develop and implement customized and decentralized water management plans established through collaboration with local Natural Resource Districts and stakeholders that provide for long-term sustainability of the state's water resources.

Conveying Outcomes

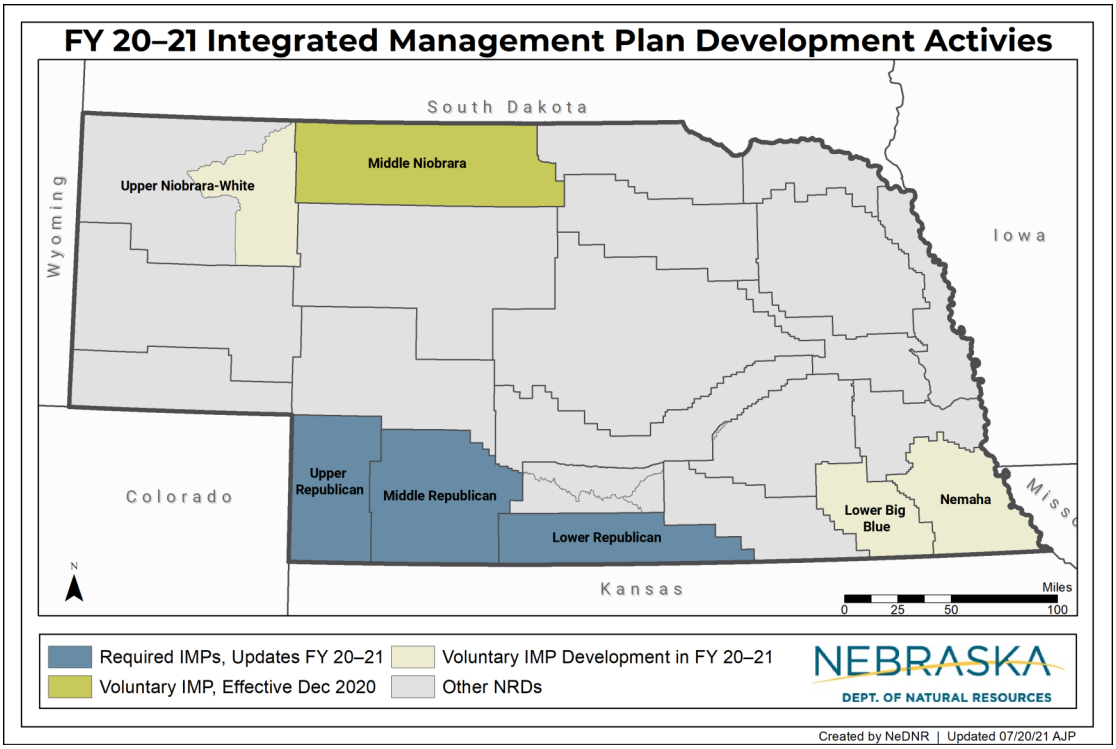
Each year NeDNR produces a variety of reports on progress made toward a variety of water planning goals. Publications include annual reports for integrated management plans presented at stakeholder meetings and reports on the funds administered by NeDNR.

These report can be found on our website: https://dnr.nebraska.gov/water-planning/approved-water-management-plans

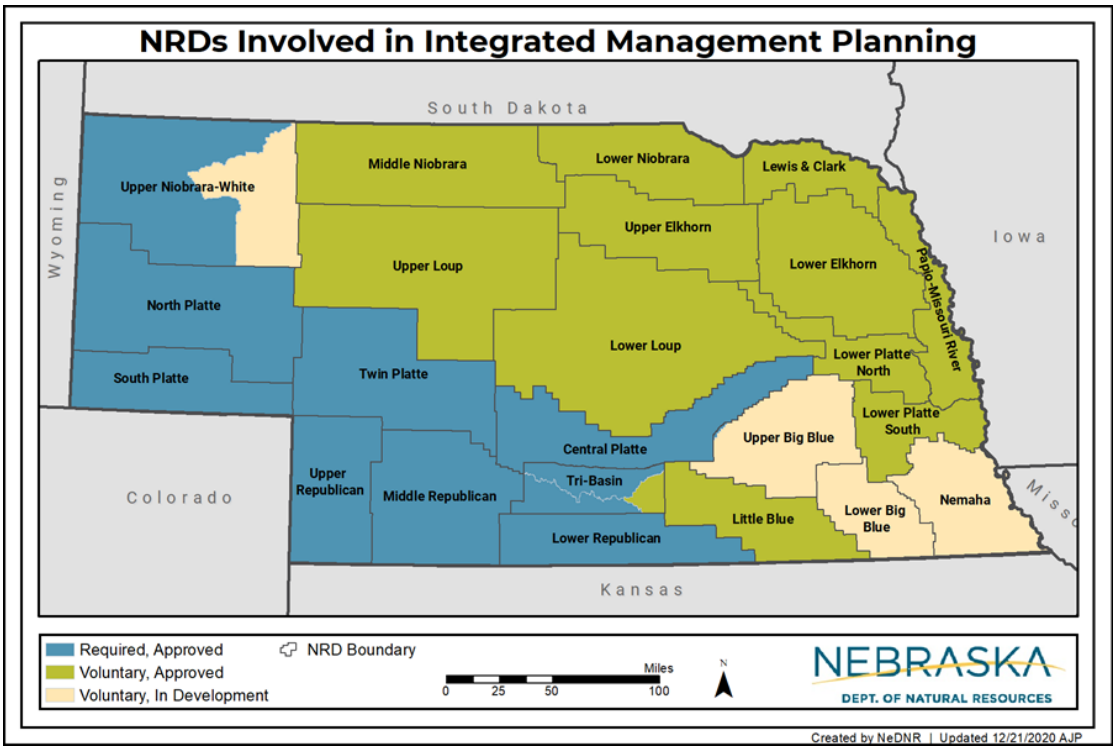


Conduct annual assessments of progress toward goals, objectives, and key actions identified by local stakeholders

Integrated Water Management - Nebraska's Process for Statewide Water Planning



The Water Planning division works collaboratively with other agencies, NRDs and the public to create and implement integrated water management plans (IMPs) across the State of Nebraska based on sound science to sustain and protect Nebraska's water supplies and water uses for both the near and long term.



Complete integrated management planning and basin-wide planning development for the entire state

Integrated Management Plans

Upper Niobrara White

The Upper Niobrara White NRD has a required IMP in place for the western (fully appropriated) portion of the district, but decided to begin work on a voluntary IMP for the remainder of their district as well. Despite the challenges of the COVID-19 pandemic, the District and Department began work on this IMP with the first (virtual) stakeholder meeting in November 2020. Another virtual stakeholder meeting was held in April 2021, and the District and Department will begin drafting the IMP and share it with stakeholders in the coming fiscal year.

Middle Niobrara

The Middle Niobrara NRD and the Department finished development of a voluntary IMP in FY20-21. The District and Department reached agreement on the final draft, and hosted a public hearing to accept comments in September 2020. The District and Department then agreed on the final draft of the IMP and issued orders adopting it, along with surface water and groundwater controls. The IMP became effective December 30, 2020.

Upper, Middle, and Lower Republican

The Upper, Middle, and Lower Republican NRDs worked with the Department to complete development of draft proposed fifth-generation IMPs in FY20-21, and concurrently worked together to develop a Technical Memorandum containing technical procedures to assist with implementing the IMPs. These IMPs were updated to be easier to read and understand, to make changes consistent with the Republican River Basin-Wide Plan (which was adopted in 2019), to make updates consistent with those in the Republican River Compact Administration procedures, and to add a new goal. Public hearings on these IMPs were held in July 2021, at which no comment or testimony was received. The IMPs will be adopted and made effective in the coming fiscal year.

Lower Big Blue and Nemaha

The Lower Big Blue and Nemaha NRDs and the Department are developing voluntary IMPs for the respective districts. Much like the work done in the Upper Niobrara While, two virtual stakeholder meetings were held for each district in the FY20-21 year: in July and November 2020. The stakeholder meetings in July for these two districts were the first-ever virtual stakeholder meetings for an IMP. Draft plans have been developed for each district, which will be refined and presented to stakeholders for input in the coming fiscal year. The Department anticipates that both IMPs will be adopted and effective in the coming fiscal year as well.

Continuing Cooperation with Neighboring States

Republican River Compact

NeDNR met virtually with representatives from Kansas and Colorado on a regular basis to discuss updates and management strategies for the basin, which helped maintain a positive working relationship despite varying meeting and travel restrictions. The Republican River Compact Administration successfully held their first-ever all-virtual meeting on August 21, 2020, with 48 attendees.

Blue River Compact

The 48th Kansas-Nebraska Big Blue River Compact annual meeting took place May 13, 2021. For the second year in a row this meeting was held virtually. This compact is unique, because the agreement not only determines how water in the basin is shared between the two states, it also contains a water quality component.

Lower Missouri Flood Risk and Resiliency Feasibility Study (Lower Missouri FRRS)

In September 2020 NeDNR, Iowa Department of Natural Resources, Kansas Water Office, and Missouri Department of Natural Resources entered into an agreement with the US Army Corps of Engineers (USACE) and Kansas City districts to conduct the study. The purpose is to develop a system plan for reducing flood risk along the lower Missouri River. NeDNR staff participate in monthly virtual meetings for coordinating study efforts.

Streamgaging Ensures Compliance

Water Administration team members collect and review stream flow data from more than 200 stations located on streams, rivers, canals, and reservoirs. This data is used both internally and by state and federal agencies for water administration, integrated water management , dam safety, floodplain analyses, and flood warning and emergency response.

Collecting this data also helps to ensure compliance with interstate compacts.

Support the continued compliance with all interstate water compacts, decrees, and agreements

Missouri River Agreements

Missouri River Recovery Implementation Committee (MRRIC)

NeDNR staff continued to serve as Governor's representative on the MRRIC and participate in several web meetings and webinars during the past year. The committee's congress authorized charges include providing recommendations to the U. S. Army Corps of Engineers (the Corps) and the U. S. Fish and Wildlife Services for their efforts in recovering the endangered and listed pallid sturgeon, piping plovers and least terns. There were no official recommendations approved by the committee without holding the two in-person meetings required by the charter rule. The committee members worked with the Corps on efforts for developing Ft. Peck Dam alternate flow hydrographs environmental impact statements and the decision process for selecting intercept rearing complex (habitat for pallid sturgeon) sites along the river reach in State of Missouri.

Lower Missouri River – Planning Assistance to States (PAS) Study

In December 2019, NeDNR and Iowa Department of Natural Resources signed an agreement with the Corps Omaha District to conduct a study on the Lower Missouri River Flood Risk Assessment.
A series of virtual stakeholder meetings were hosted by NeDNR on June 17, June 19, and June 22, 2020.
These virtual meetings served as the beginning of the outreach effort - providing background and purpose of the outreach effort, introducing the types of information regarding flooding on the Lower Missouri River being requested and inviting additional stakeholders.
Following the virtual meetings, four stakeholder meetings were held to discuss flooding issues on the Lower Missouri River and gather stakeholder input. Due to COVID -19, all meetings included options for both virtual and in-person attendance. Comments were captured during the meetings using tools within GIS and multiple layer GIS mapping, including the 2019 flood limits/extent information.

The PAS study report is anticipated to be released in September 2021.

Lower Missouri Flood Risk and Resiliency Feasibility Study (Lower Missouri FRRS)

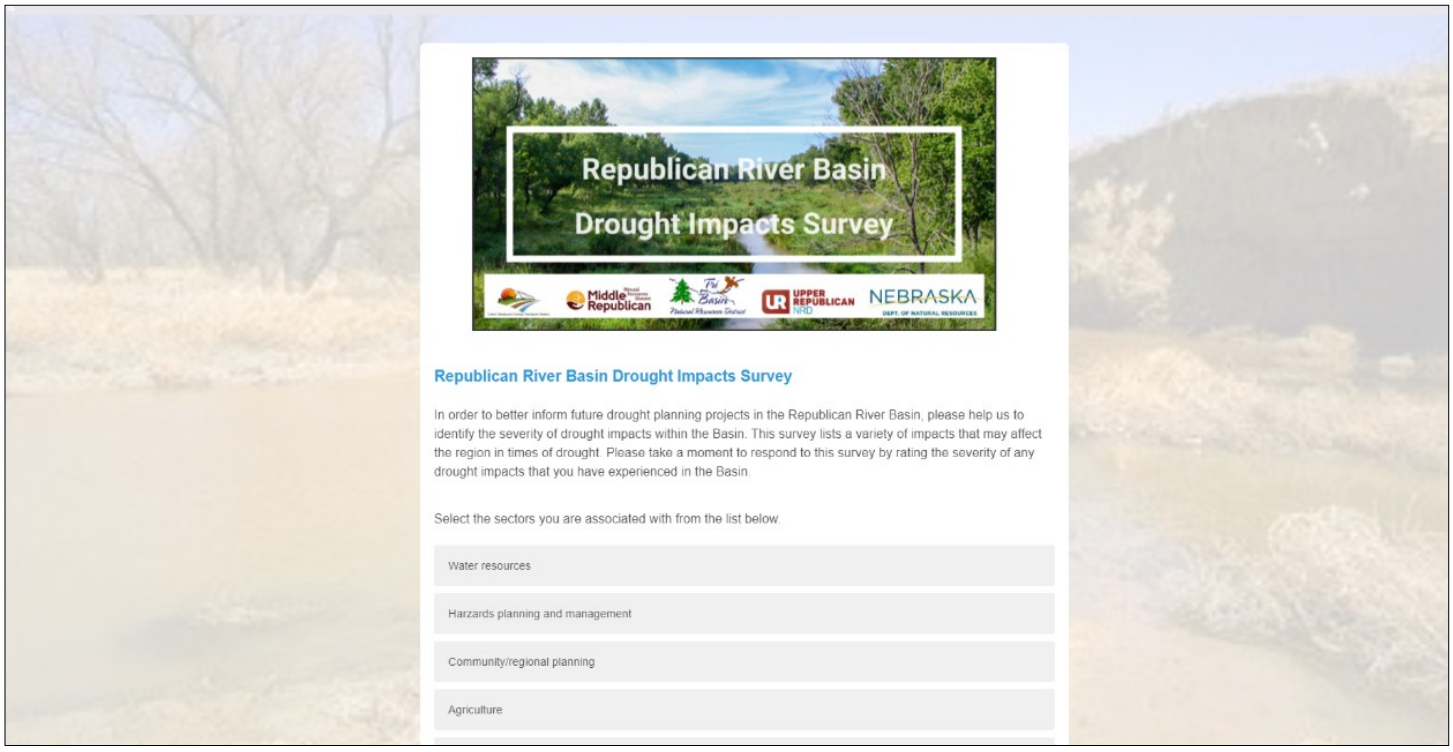
In September 2020, NeDNR, Iowa Department of Natural Resources, Kansas Water Office and Missouri Department of Natural Resources entered into an agreement with the Corps Omaha and Kansas City districts for conducting the Lower Missouri FRRS study. The purpose of this study is to develop a system plan for reducing flood risk along the lower Missouri River. With the findings of the PAS and Lower Missouri FRRS studies, feasible site-specific flood risk measures will be identified, evaluated and implemented to reduce flood risk in the future. NeDNR representatives have been working with the Corps staff and other states' representatives in developing a scope of work for the Lower Missouri FRRS study. NeDNR staff participate in monthly virtual meetings for coordinating the study efforts.

Preparing for Drought

In the Republican River Basin, NeDNR has worked with a Graduate Research Assistant from UNL and the National Drought Mitigation Center (NDMC), to develop a tabletop exercise that will focus on surface water and groundwater policy in the basin and how existing plans might guide decision making in the event of a drought. This spring, a survey to gauge the severity of drought impacts on individuals living in the basin was developed and will be distributed soon.

NeDNR has worked closely with the NDMC to develop a tabletop drought scenario exercise in the Lower Platte River Basin as well. The event, hosted by the Lower Platte Drought Consortium, is planned for August 24th and will be designed to test the existing drought plan for the area. The Department has also been developing a drought monitoring dashboard that will allow users to view real-time and historical drought conditions across the basin. The Department hopes to launch the dashboard in conjunction with the tabletop exercise.

NeDNR and the Upper Platte overappropriated area NRDs received notification of a successful Bureau of Reclamation Grant to develop a drought mitigation plan for the 5 NRDs involved. The grant will begin in FY 22



Work to provide increased preparedness for future droughts

AGENCY GOAL

Encourage strong public engagement with multiple constituents and stakeholder groups in planning and implementation activities to ensure that local and state needs are addressed.

Outreach

Conducting in-person outreach events was made difficult by COVID 19; however, NeDNR team members were able to use their creativity and technology to engage with stakeholders.

Over the year, Floodplain Management team provided several trainings to Floodplain Administrators, Insurance Agents, Realtors, Surveyors, Clerks, Engineers, and others interested in Floodplain Management. Starting in November 2020, Floodplain team started providing monthly virtual trainings for local Floodplain Administrators. This program has proved to be a success as attendance is almost three times what Floodplain team was used to seeing at in-person trainings.

Continue to find ways to reach constituents and stakeholders through public outreach events and surveys

Stakeholder Participation

Floodplain Virtual Trainings

8 Monthly Virtual Meetings with 398 total individuals in attendance.

October 27 Basic Floodplain Management: 108 participants

December 17 Permitting with Confidence: 49 participants

December 18 Permitting with Confidence: 51 participants

January 21 Floodplain Ordinance Enforcement: 43 participants

February 18 Basic Floodplain Management: 62 participants

March 18 Substantial Damage Assessment: 40 participants

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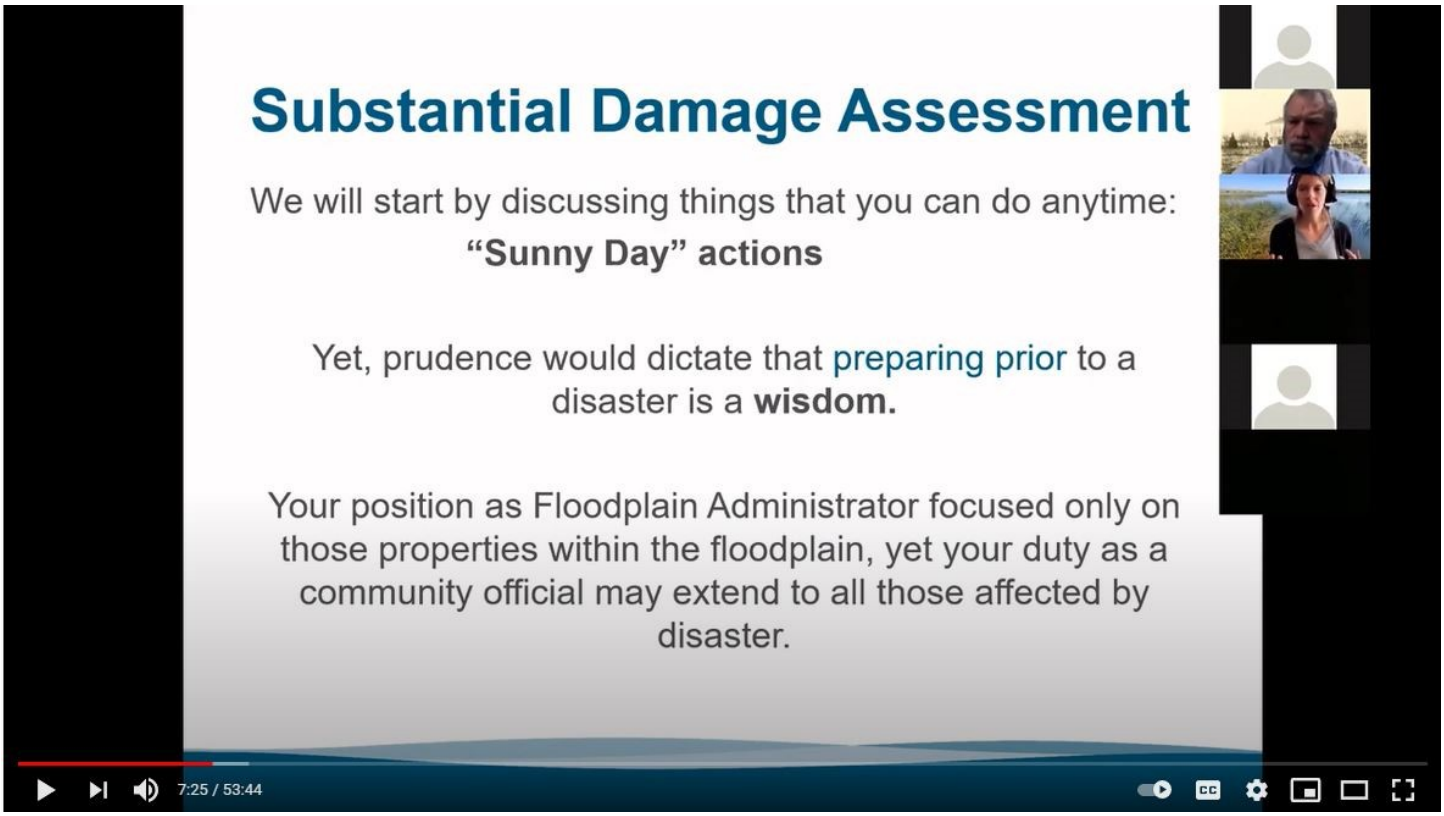
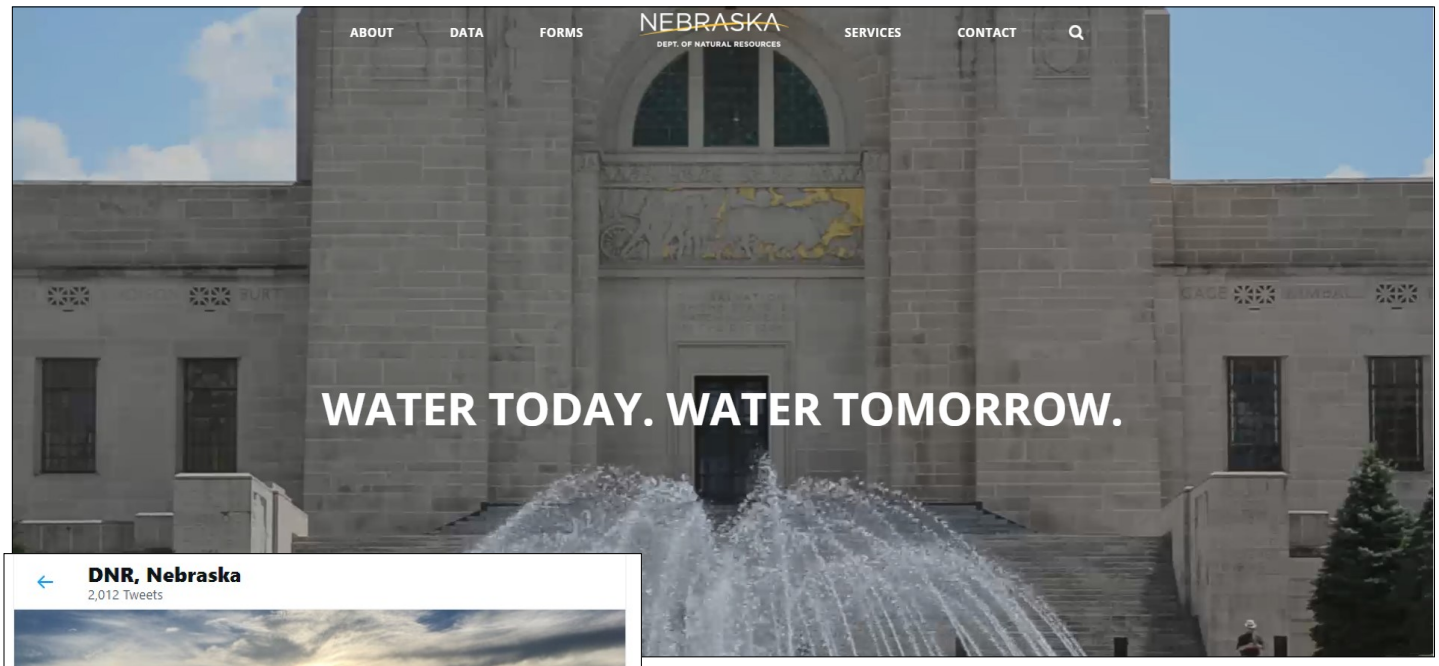
June 17 How and Why to Update Your Floodplain Ordinance: 34 participants

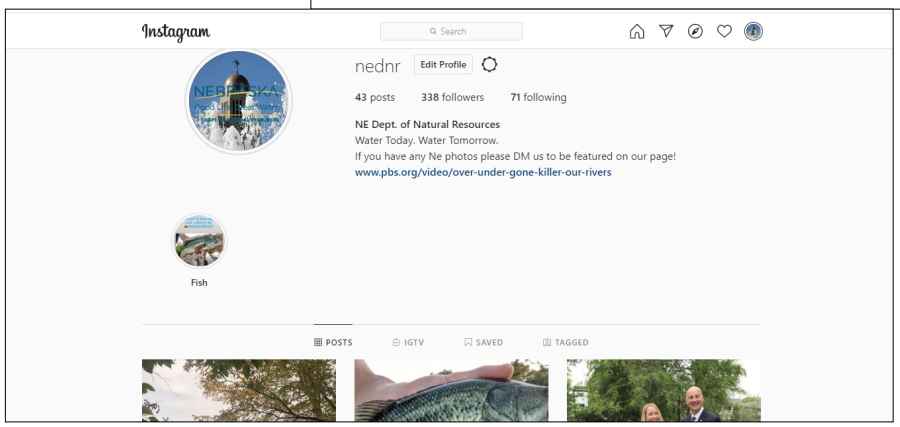


Create opportunities for expanding public participation in planning efforts conducted at the state and local level

Digital Footprint



NeDNR utilizes digital media including websites and social media to engage with stakeholders and share information in real time. Social media sites drive traffic to the website.

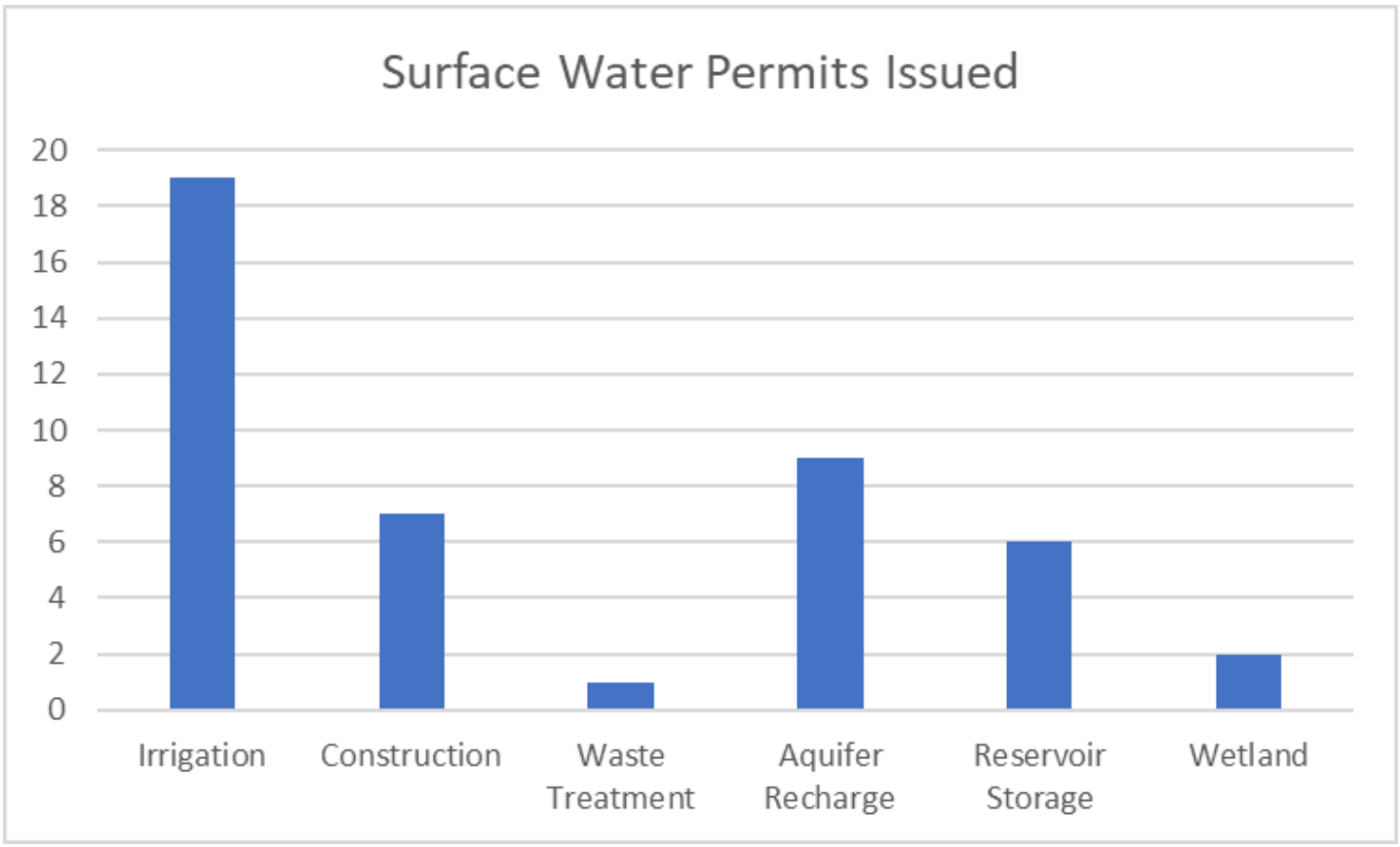


Work to streamline communication of key materials for consumption by diverse stakeholder groups

AGENCY GOAL

Protect existing water uses through collaborative investments in water resource projects, planning, administration and permitting of surface water rights, and the registration of groundwater wells.

Streamlined Processes



The average processing time for the permits issued last year was six weeks. The ten-year average processing time prior to establishing the metric was eighteen weeks. Approximately sixty -five percent of the surface water applications approved were related to agriculture. Traditionally about eighty percent of surface water rights have been irrigation-related, so last year was typical in that sense. However, the relationship to agriculture is changing as evidenced by the aquifer recharge permits issued. These permits utilize surface water when the river flows are higher to supplement the groundwater aquifers which are being utilized to irrigate crops adjacent to the Platte River.

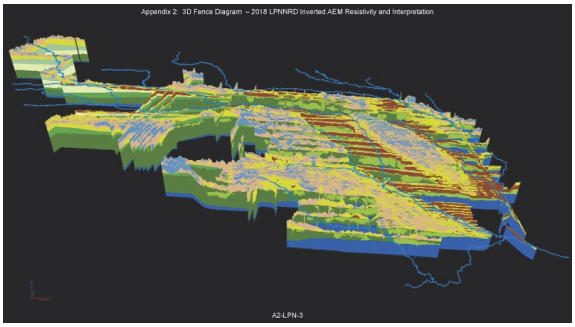
Continue to streamline water rights and well registrations process for more efficient customer interactions

Natural Resources Commission
Water Sustainability Fund Projects

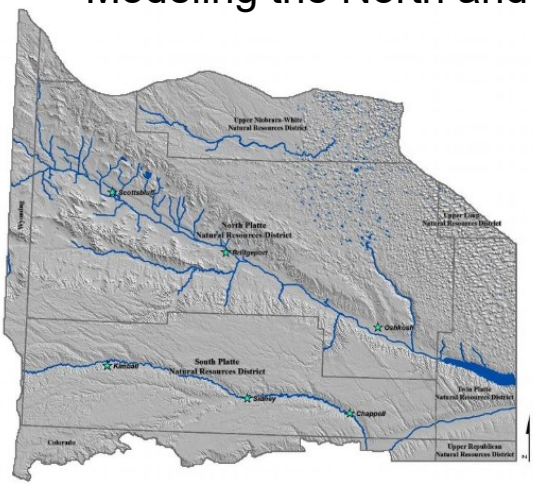
Mapping the Aquifers—Eastern Nebraska

In order to develop a 3D hydrogeologic framework of eastern Nebraska, Eastern Nebraska Water Resources Assessment (ENWRA), through funding obtained through the Water Sustainability Fund, used Airborne Electromagnetics (AEM) to collect subsurface information of the aquifers in the region.

The remote sensing technique of Airborne Electromagnetics (AEM) has the capability of collecting many thousand virtual boreholes at a fraction of the cost of traditional drilling. AEM is then combined with existing information about aquifer characteristics to provide an overall three dimensional framework of the aquifer extents and interactions.



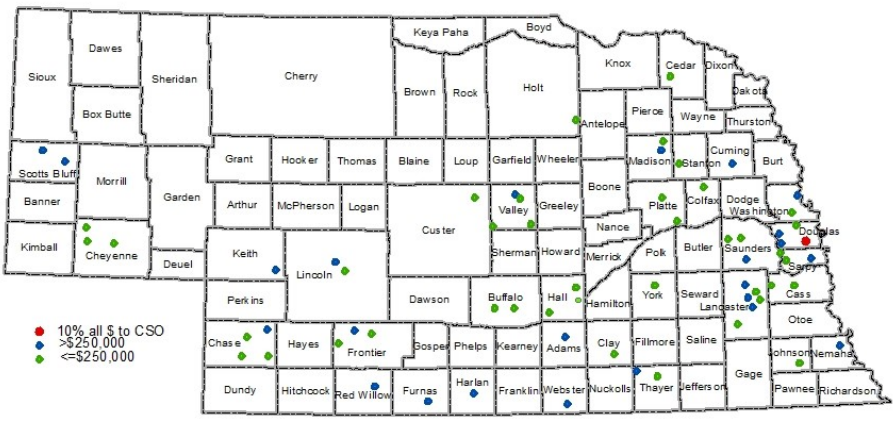
Modeling the North and South Platte Rivers—Western Nebraska



The Western Water Use Management (WWUM) modeling project will accomplish a number of model updates and refinements, and complete a modeling extension. This will allow the North Platte and South Platte Natural Resources Districts (NPNRD, SPNRD, or NRDs) to complete essential and complex analyses of their water management actions, projects, and evaluation of potential projects to meet their goals of reducing consumptive use and increasing streamflow.

The current computing technology includes a useful and capable artificial intelligence algorithm to aid in land use recognition updates and to utilize the tool to update the land use through 2022.

Distribution of WSF projects



Support the NRC in administering state-aid funds and identifying project opportunities for sustaining future water supplies.

Water Sustainability Fund

Large Projects over $250,000	Amount Allocated	Amount Obligated
Deadmans Run Flood Reduction LPSNRD (2019)		2,564,141.04
Peru Water Supply	2,441,400.00	2,441,400.00
NPPD's SP Supply Canal Restoration	2,357,672.00	2,357,672.00
Total	**4,799,072.00**	**7,363,213.04**

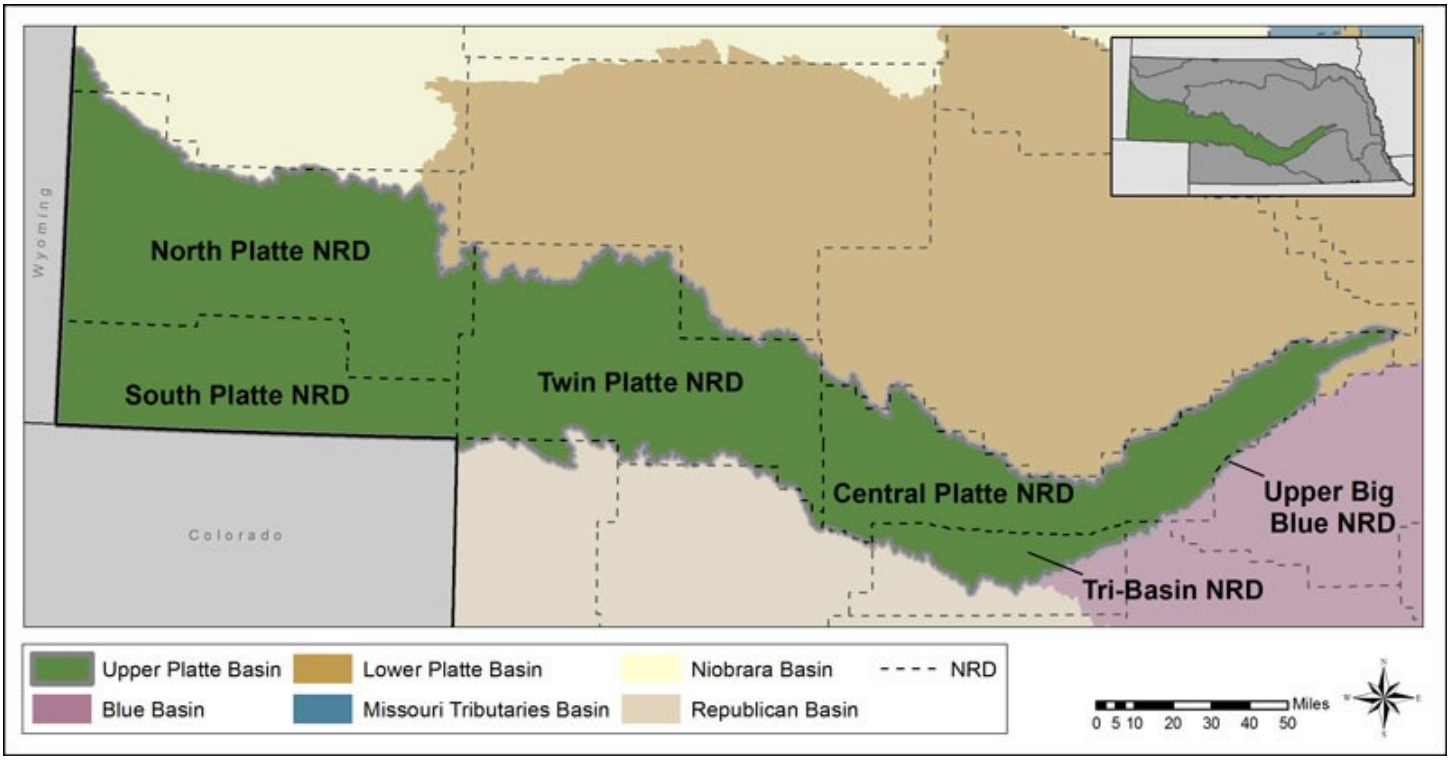
Small Projects $250,000 or less	Amount Allocated	Amount obligated
WWUM Dashboard App	240,000.00	240,000.00
URNRD Soil Moisture Probe	123,840.00	123,840.00
TPNRD Aquifer Monitoring	249,990.00	249,990.00
Papio and LPN NRD's 3D AEM Framework	168,000.00	168,000.00
Total	**781,830.00**	**781,830.00**
Grand Total	**5,580,902.00**	**8,145,043.04**

Seek opportunities to promote continued investments in water resource projects aimed at addressing aging water supply infrastructure

Water Rights Transfers

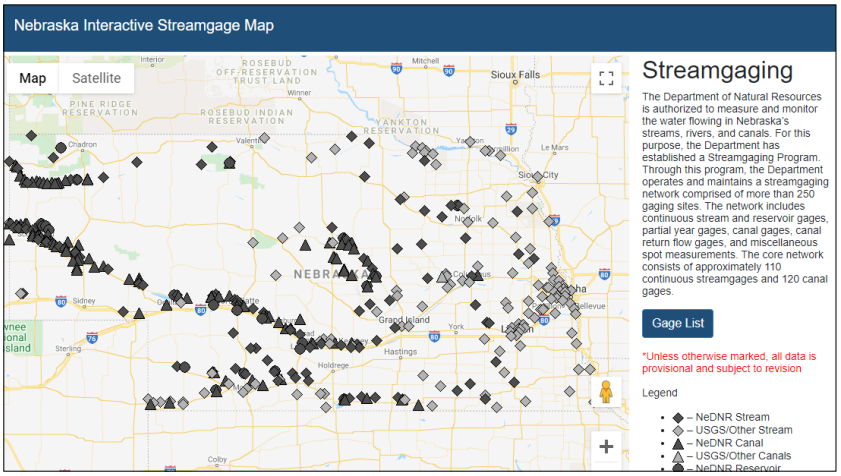
The Department has been collaborating with natural resources districts and irrigation districts in the Platte River basin to develop innovative solutions to accommodate future water user's needs. These solutions have developed over the last decade as Nebraska has grappled with sometimes competing demands for water from traditional irrigation water users, integrated management plan goals and objectives, goals of the multi-state and federal Platte River Recovery and Implementation Program (PRRIP).

The Department continues to work with water users to develop other transfer concepts to continue to innovate and find new ways to achieve more effective methods to conjunctively manage surface and groundwater resources.



Work to support water right changes that can support innovative solutions for future water user needs

Streamgaging Data



Streamgaging Website

IT and Water Administration worked together to add historic data to NeDNR's Streamgaging website for active gages.

Streamgaging Review Tool - A streamgaging review tool was create within, giving streamgaging staff the ability to pull the current status for every station. This improves the efficiency of incorporating this information into daily water administration decisions that NeDNR does.

Continue to adopt technologies and data collection strategies that improve the administration of water rights

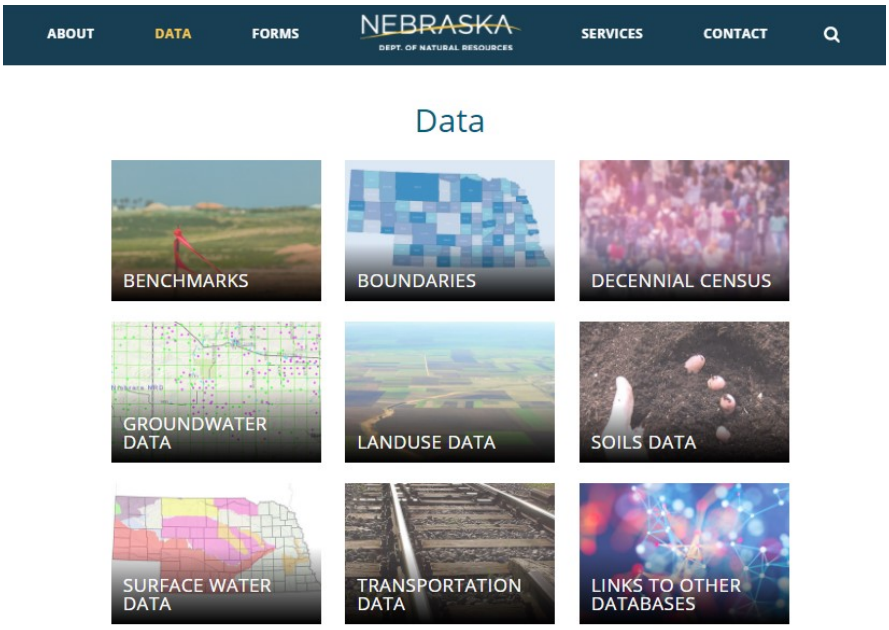
AGENCY GOAL

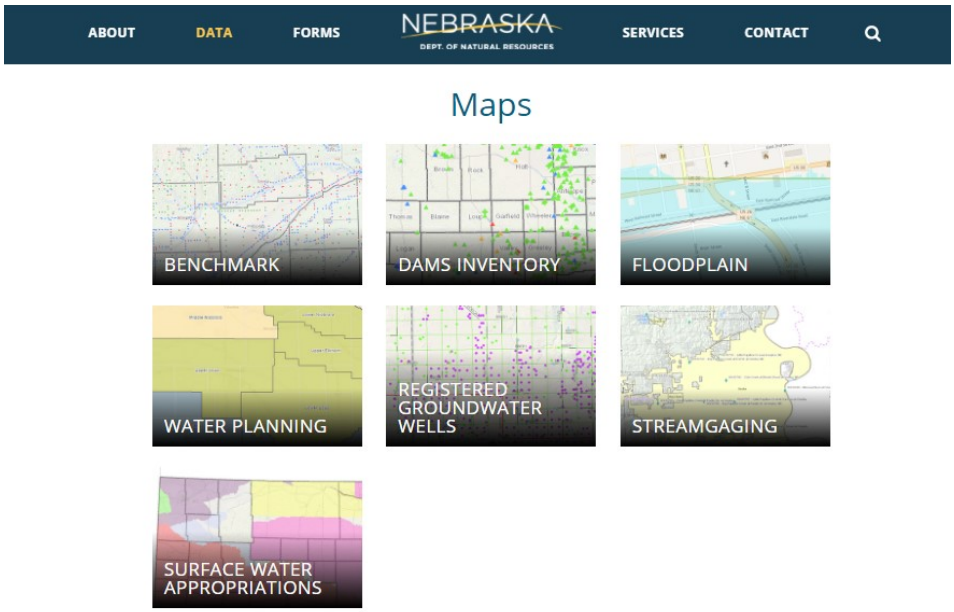
Provide agency-wide services and support in the areas of information technology and transparent data sharing, business process improvement, public information, and administration of state-aid funds in conjunction with the NRC.

Sharing Data

The Natural Resources Data Bank, statutorily created in 1969, is administered by the Department of Natural Resources. The purpose of the Data Bank is to develop, store, process and manage natural resources data relating to land and water resources of the State, and make the information available to government agencies and the general public in a user-friendly and timely manner.

NeDNR continually finds new and more efficient ways to convey this data used by both NeDNR and federal and state partners in decision making.

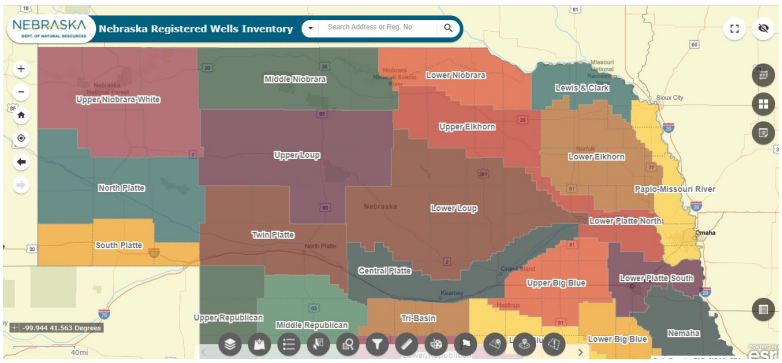




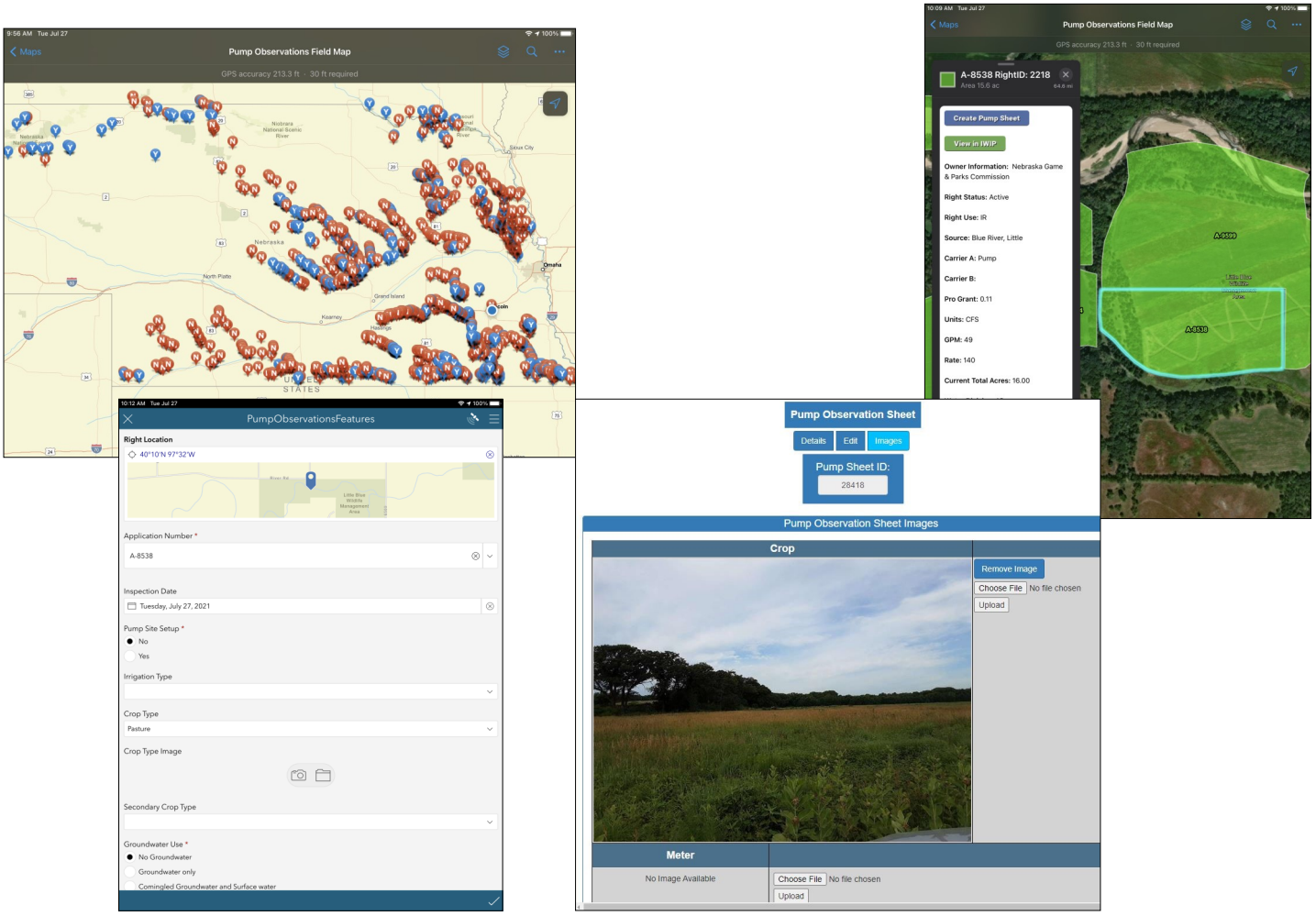
Enhance the public dissemination of water related data to support transparent and effective planning and mitigation of future risks

Groundwater Interactive Products

Groundwater update– NeDNR worked with Nebraska Interactive to update the well registration form. This resolved issues with contractors associated with multiple firms or offices. The enhancements are more efficient and save our customers time and energy during the registration submittal and approval process. One notable change is that customers can now build their own list of well professionals who currently work for their company and update any changes in information for their well professionals at the time of submittal.



New pump observation applications—During the irrigation season, NeDNR field staff inspects numerous surface water pumps and diversion sites, and collects water use data throughout the State. The Water Administration Division works with IT to develop and fine-tune mobile applications that are used to access the data that the Department already has as well as collect new data via recently created data entry forms in ESRI Fieldmaps and Survey123. The recently updated pump observation application runs on a tablet or smart phone and is intuitive and easily used in the field while still providing everything necessary to utilize data once only available through desktop computers and paper maps. The data collected through the pump observation application helps the Department determine that surface water permit conditions are being met and assists in making efficient use of Nebraska's surface water resources.



Continue to create more efficient processes for data exchange that enhance the understanding of water uses

"We never know the worth of water till the well is dry."

– Thomas Fuller

Five-Year Financials

Financial Summary Table

Budget & Actual – Admin. Services, Streamgaging, Water Planning, & Litigation
Prog. 334 - Subprog. 06, 07, 19, & 21
As of 8/19/2021

	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Plan	FY 2023 Plan	FY 2024 Plan
Personal Services (Salary & Fringe)	$1,985,679	$2,155,403	$2,436,118	$2,509,202	$2,584,478	$2,662,012
Travel Expenses	$51,530	$39,178	$16,503	$40,000	$45,000	$50,000
Operating Expense – SOS Temporary Personnel	$16,486	$35,883	$87,218	$90,000	$92,000	$94,000
Operating Expense- Mgmt Consultant, Contractual Services, and Engineering & Architectural Services	$1,169,996	$861,456	$1,487,862	$1,000,000	$1,000,000	$1,000,000
Equipment, Computer, and Software	$211,878	$338,564	$236,143	$175,000	$185,000	$200,000
Operating Expense - Other	$209,228	$216,364	$122,350	$150,000	$175,000	$195,000
Capital Outlay/Fixed Assets Except Computer	$2,731	$89,649	$33,888	$75,000	$85,000	$95,000
Interstate Water Litigation	$27,831	$4,800	$4,800	$10,000	$10,000	$10,000
TOTAL	**3,675,359**	**$3,741,297**	**$4,424,882**	**$4,049,202**	**$4,176,478**	**$4,306,012**

STATUTORY AUTHORITY

The director of the Department of Natural Resources submits this report in compliance with Nebraska Revised Statute Sections 2-1599 and 2-15,106.

Section 2-1599: Statement of Purpose

In order to provide for the effective conservation and management of Nebraska's water resources, the legislature hereby endorses the concept of a state water planning and review process. The purpose of this planning process shall be to coordinate and direct the planning efforts of the state agencies and university divisions with the responsibilities and interest in the water resources field. This interagency planning process shall be designed to:

1. Provide the Legislature and citizens of Nebraska with information and alternative methods of addressing important water policy issues and area-wide or statewide water resources problems;
2. provide coordinated interagency reviews of proposed local, state, and federal water resources programs and projects,
3. develop and maintain the data, information, and analysis capabilities necessary to provide state agencies and other water interests with a support base for water planning and management activities;
4. provide the state with the capacity to plan and design water resources projects; and
5. conduct any other planning activities necessary to protect and promote the interests of the state and its citizens in the water resources of Nebraska.

Section 2-15,106. Annual Report Contents

On or before September 15 for each odd-numbered year and on or before the date provided in subsection (1) of section 81-132 for each even-numbered year, the director shall submit an annual report and plan of work for the state water planning and review process to the Legislature and Governor. The report submitted to the Legislature shall be submitted electronically. The report shall include a listing of expenditures for the past fiscal year, a summary and analysis of work completed in the past fiscal year, funding requirements for the next fiscal year, and a projection and analysis of work to be completed and estimated funding requirements for such work for the next succeeding four years. The explanation of future funding requirements shall include an explanation of the proposed use of such funds and the anticipated results of the expenditure of such funds. The report shall, to the extent possible, identify such information as it affects each agency or other recipient of program funds. The explanation of future funding requirements shall be in a form suitable for providing an explanation of that portion of the budget request pertaining to the state water planning and review process.


NEBRASKA
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DEPT. OF NATURAL RESOURCES