

25,800 Acres Treated for Phragmites

Rich Walters of The Nature Conservancy recently gave an update on the West Central and Platte Valley Weed Management Area's (WMAs) joint effort to control invasive species along the Platte River. The WMAs consist of 16 counties in south-central Nebraska along the Platte River, including 315 miles of Platte River channels and 11,000 acres within the main channels.

Since the project began in 2009, Walters said 25,800 acres have been treated for invasive Phragmites within Central Platte NRD. With the help of over 700 landowners, Phragmites have been reduced by 86% and purple loosestrife by 70% through continued maintenance.

Aerial and ground application techniques are used to apply herbicide while disking and shredding are used for biomass removal. Walters said initial evaluation of control has been very positive. Herbicide application has proved effective with minimal re-infestations occurring. Flow conveyance has improved and wildlife habitat has also increased.



June 2008

May 2011



October 2008

March 2011



May 2009

March 2010

A total of \$5.5 million has been spent on the project with 91% of the funds used for herbicide and mechanical control, and the remaining funds used for monitoring, public outreach, legal and insurance costs, and project coordination. CPNRD has provided \$418,118 towards the project in cooperation with Nebraska Environmental Trust, Platte River Recovery Implementation Program, Nebraska Department of Ag, NPPD, CNPPID, Ducks Unlimited, Twin Platte NRD, and Tri-Basin NRD.

Visit plattevalleywma.org or call Rich Walters (308) 390-2511 to learn more.

Audubon Celebrates New Viewing Deck



CPNRD General Manager, Lyndon Vogt, and board director Deb VanMatre take part in the ribbon cutting ceremony for the new viewing deck.

As part of Iain Nicolson Audubon Center spring crane migration celebration, a dedication ceremony was held at the new wildlife viewing pull-off area located at Rowe Sanctuary. Central Platte NRD provided financial support towards the new parking area, viewing space, and interpretive signs.

The area is located near a wet meadow along the historic south channel of the Platte River located west of 43 Road where large groups of sandhill cranes gather in the morning and late afternoon. The new wildlife viewing pull-off will make passage on the county road safer and reduce the stress on resting and feeding cranes using the area. It also provides education about the important role of wet meadows in the Platte River ecosystem.

Visit rowe.audubon.org or call (308) 468-5282 to learn more.

Making Changes This Irrigation Season?

Just a reminder... if you are planning any changes this irrigation season, it's important to check with CPNRD staff before doing any development work that concerns newly irrigated acres. Limitations to consider:

- * Moving water more than 1 mile west. * Developing significantly sloped ground.
- * Vegetation restrictions on water moved from sub-irrigated areas.
- * No transfers into over-appropriated areas of our district or declining Ground Water Management Areas.

Certified Acres Any land that is not certified as irrigated with the NRD cannot be irrigated unless the newly irrigated area is offset by applying for and completing a transfer request with CPNRD. All transfers must be completed before irrigating. Failure to obtain an approved transfer is subject to penalties.

Land Purchases Check the certified irrigated acres of a property before making any buying decisions. Visit CPNRD's Interactive Map at: cpnr.d.gisworkshop.com to check all certified irrigated acres.

Your CPNRD Contacts: Luke Zakrzewski or Angela Warner (308) 385-6282.

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Volume 21
No. 1
May 2018



IN PERSPECTIVE NEWSLETTER

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Managing Groundwater Quality for 30 Years

In 1987, the CPNRD Groundwater Quality Management Program was the first program in the Central Platte Valley to address widespread high groundwater nitrate problems. Over the last 30 years, nitrate levels in the groundwater and vadose zones have been reduced using a long-term, common sense management approach. Until the Program was adopted, nitrate levels in some areas had increased at an annual rate of 0.5 ppm (parts per million) to 19.24 ppm, exceeding the 10 ppm maximum contaminant level allowed by the state and federal government. The current average nitrate level is 14.23 ppm.

The plan uses a three-phased approach with lesser restrictions in areas that are lower in nitrates and additional regulations applied to areas with higher nitrate concentrations in the groundwater. Excessively high nitrates can lead to methemoglobinemia, a condition known as "blue baby syndrome" and are also a potential hazard to livestock.

Over the years, changes have been made to the Program. When the Program was initiated, emphasis was given to reducing commercial fertilizer input by counting the contribution from residual sources. After further study, it was realized that the leaching problem had two components: fertilizer and water. Reductions in the amount of water applied produce less leaching than just reduction of fertilizer inputs. Many of the tools needed by producers to reduce both fertilizer and water are encouraged through availability of cost-share programs by the District. As new technology develops, CPNRD's cost-share programs are modified to allow producers to implement the new practices for better irrigation management.

Reporting requirements have also evolved over the years. The annual reporting form is now online saving producers time and taxpayer money. Prior to the online form, Sandy Noecker, data compliance officer, would manually enter 5,000 to 7,000 forms each year. Noecker has administered the Groundwater Quality Program since its implementation.

Nearly 800 producers participate in the Groundwater Quality Management Program annually and are credited for lowering contamination levels through their management efforts. Demonstration sites have been an effective learning tool. CPNRD has the longest-running demonstration project in Nebraska with over 400 sites located on local producers' cornfields. The demonstration sites replicate levels of nitrogen application, usually in increments of 50 pounds above and 50 pounds below the calculated nitrogen recommendation, based on the University of Nebraska's algorithm.

Lyndon Vogt, general manager, said "Although average nitrate levels have dropped 5 ppm in 30 years, there are still high nitrate areas throughout the District. Central Platte NRD will continue to work with producers to implement best management practices and implement regulations as needed to reach safe nitrogen levels in our groundwater."

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To find out more visit WWW.CPNRD.ORG



First Urban Conservation Funding Approved

The board approved its first applications for the Urban Conservation Program in Grand Island and Kearney at their March board meeting. Cost-share funding was approved in the amount of \$30,000 to the City of Grand Island for picnic shelters at Sterling Park within the Sterling Estates - located in northwest Grand Island. The funding will be used for the next development of the park which will also include a basketball court, backstop, and benches.



The second project to receive funding was submitted by the City of Kearney. The board awarded \$17,965 to the city to complete a design for the Whitewater Park Recreation Plan including stream drop structures, bank stabilization, hike-bike trail connections, park-like observation area, and a new put-in boat ramp.

The Urban Conservation Program is designed to assist sponsors in the establishment, development, and improvement of public recreational areas with a wide range of conservation recreational opportunities. Two types of funding are available under the Urban Conservation Cost-Share Program- the Recreation Area Development Program and the Trails Assistance Programs.

Applications are accepted on an annual basis with a deadline of March 1st to be funded in the following fiscal year budget. The cost-share rate is 50% of eligible project costs up to a maximum of \$40,000.

Your CPNRD Contact: Jesse Mintken (308) 385-6282 or mintken@cpnrd.org.

Central Nebraska Irrigation Project Launched

It's about the size of a Roomba, but it collects much more than dog hair.

Thirty farmers in the region will be taking the Arable Mark for a test drive this year, as part of the newly launched Central Nebraska Irrigation Project. This field-level weather and crop monitoring device collects over 40 different data streams on things like precipitation, evapotranspiration, solar radiation, plant health, weather, harvest timing, wind, soil moisture, and much more.

"We've tried smart weather sensor technology in western Nebraska with good success, and we're eager to test it in the Central Platte NRD," said Dr. Hannah Birgé, Water & Ag Program Manager for The Nature Conservancy in Nebraska. With help from Courtney Widup, CPNRD water resources technician, The Conservancy is enrolling farmers into the Central Nebraska Irrigation Project. This effort is funded by Nestlé Purina and Cargill.

"Farmers are continually innovating to bring food to the table more sustainably," said Courtney Hall, Cargill Technical Sustainability Manager. This Project's innovations includes pivot telemetry, flow meters, and Arable Mark. The Nature Conservancy believes by putting innovative, cost-effective irrigation technology in the hands of farmers, the amount of water needed for row crop irrigation is reduced.

"That means good things for conservation and good things for farmers," said Birgé.

The project was initiated through the efforts of the Midwest Row Crop Collaborative, a group of corporations and nonprofit conservation organizations focused on advancing and accelerating farmer-led conservation practices. "By engaging the Midwest Row Crop Collaborative, best practices from the Nebraska project can extend to growers in other regions," said Jacob Fritton, Water and Agriculture Project Lead for The Nature Conservancy.



PIVOT TELEMETRY
Data accessible via computer or mobile device. Equipment installed on pivot.



ARABLE MARK
Installed in-field or edge of field. Accessible via mobile device or computer.



FLOWMETER
Mounted on pipe near irrigation well.

Chemigation Permits Due June 1st

With chemigation season quickly approaching, we'd like to remind producers that current renewal permits expire on June 1st. Renewal permits can be issued without an inspection at a cost of \$20.00. Renewal applications received after June 1st must comply with provisions for new permits, including a \$60 permit fee and a required inspection before the permit can be issued.

Chemigation, also known as fertigation, is an efficient and economical means of applying chemicals and fertilizer that are necessary for crops. To comply with Nebraska state law, any new chemigation systems must be inspected by a producer's local natural resources district prior to any application of fertilizer or chemicals.

Once a system has been inspected and a renewal application is sent in, the system will need to be inspected every three years if chemigating in the Central Platte NRD. If changes are made to any part of the system, for example, a new pump or a new pivot, reinspection of that system is required.

There are many advantages to using chemigation with center pivots. One advantage is chemical coverage. Properly designed and operated irrigation systems may apply chemicals more uniformly than aircraft and some ground sprayers. It allows prescription and timely application of chemicals based on the crop requirements.

Chemigation also provides savings and profit. Applying chemicals through an irrigation system can save 40% or more in chemical application costs. Timely fertilizer applications can also increase crop yields.

Your CPNRD Contacts: Sandy Noecker & Tricia Dudley (308) 385-6282.

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Yes - Replacement Wells Must be Registered

Over the years Nebraska State Statues have been fine-tuned, but the one thing that has remained the same is that all irrigation wells (as well as other wells pumping groundwater) are required to be registered with the Nebraska Department of Natural Resources (Department).

If an irrigation well needs to be replaced, the old well must be filled-in or decommissioned within 180 days after drilling the new well; otherwise it is not considered a replacement well. Well registration forms and decommissioning forms must be filed with the Department.

Landowners do have the option to keep their old irrigation well as a livestock, monitor, or observation well if approved by the CPNRD. There are specific requirements to keep the old well: the irrigation well pump must be removed, a pump of less than 50 gpm must be installed within 180 days after the new well is drilled, and it must be installed with a proper seal to not allow contaminants to enter the well. If this option is chosen, a well modification form must be filed with the Department.

Your CPNRD Contact: Dan Clement (308) 385-6282 or clement@cpnrd.org.

Nebraska Department of Natural Resources: (402) 471-2363 or dnr.nebraska.gov.

Youth & Natural Resources

Monarch Habitat Project

Grand Island will have three new Monarch habitat areas this spring. Students from Success Academy, Westridge Middle School, Knickrehm Elementary, and Skills Academy will grow, design, and plant habitats at Westridge Middle School, Knickrehm Elementary, and Stuhr Museum. Students and mentors from the Grand Island Rotary's Leadership Tomorrow Program will provide guidance throughout the process.

The goal of the three habitats is to provide an outdoor classroom space for students to engage in hands-on educational opportunities while providing shelter, food, and water for conservation of the Monarch Butterfly. Central Platte NRD provided \$929.75 through the Outdoor Classroom Program for the habitats.

Outdoor Classroom & Garden

The Roots & Shoots Club received \$1,000 from Central Platte NRD to implement an Outdoor Classroom and Garden at Barr Middle School in Grand Island. The project goal is to provide a place for students to learn about plants, insect pollinators, and provide the middle school students experience growing their own vegetables. The science and family consumer science teachers all plan to use the area, reaching nearly 750 students each year. The Roots & Shoots Club will maintain the area during summer months.

Central Platte NRD has provided funding for 18 projects throughout the District since the implementing the Outdoor Classroom Program in 2001.



Students experiment with items to determine how to filter water.

Mini Groundwater Festivals

The Nebraska Children's Groundwater Festival was cancelled due to a snowstorm, so the Central Platte NRD offered schools who were scheduled to attend the option to receive an awesome aquifer hydrology kit or have a mini groundwater festival at their school. Jefferson and Starr schools in Grand Island opted to have their own mini Groundwater Festivals. Students participated in four activities, each teaching different characteristics of groundwater:

***GIS/GPS: Know It!** Students used GPS units to see how NRDs calculate groundwater levels from year-to-year to manage water resources. Presented by Central Platte NRD

***Water Drop Relay** Teams competed to finish first in a re-enactment of the water cycle. Presented by Lower Loup Natural Resources District of Ord

***Water Filtration** Students experimented with several items to decide how to filter colored water to clear water. Presented by Nebraska Department of Environmental Quality

***Water Rockets** Students learned about Grand Island's water system and used water with compressed air to make water rockets. Presented by Grand Island Groundwater Guardian Team

Students from the Grand Island Senior High Key Club volunteered for the event. Schools scheduled to attend the festival this year will be invited to attend the 2019 event.

College Scholarships

Congratulations to the five students awarded Ron Bishop-CPNRD College Scholarships in the amount of \$1,000 for the 2018-2019 school year: Madison Vahle-Grand Island, Chandler Flynn-Lexington, McKinley Harm-Gothenburg, Alex Stocker-Grand Island, and Kortni Burnett-Shelton. Applicants must be college juniors or college seniors majoring in a natural resources field to qualify for the scholarship.