



2023 NACD Poster Contest Winners!

Thank you to all who participated in the 2023 National Association of Conservation Districts (NACD) Poster Contest sponsored by LCNRD. The students did a great job visually describing the theme “*One Water*.”

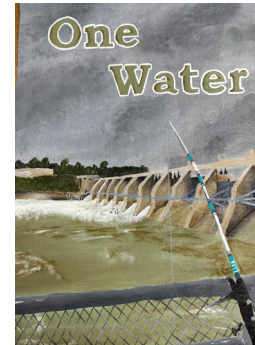
The winners of this year’s local NACD Poster Contest are kindergartener, Abigail Pinkelman from East/West Catholic, 5th grader, Lucy Steffen from Holy Trinity Elementary School, and 7th grader, Kiersten Hans, from Wynot Public Schools won the traditional and digital poster contest as well.



Abigail Pinkelman, Kindergarten,
East/West Catholic



Lucy Steffen, 5th grade,
Holy Trinity Elementary



Kiersten Hans, 7th grade,
Wynot Public Schools- Poster Entry



Kiersten Hans, 7th grade,
Wynot Public Schools- Digital Poster Entry

2024 Chemigation Certification

To chemigate in Nebraska, a person who applies chemicals and/or fertilizer through their irrigation system must complete a chemigation safety course and pass a written exam, offered through UNL and Nebraska Department of Environment and Energy.

Certification courses are offered online and in-person at multiple locations and dates throughout the state every year. To find out more information about upcoming chemigation training course dates and locations near you, contact the NRD office or a local county UNL Extension office. Online training is available year round. Certification is good for three years, starting January 1.

Questions? Contact the LCNRD office at 402-254-6758 or <https://water.unl.edu/article/agricultural-irrigation/chemigation>.

NDEE continues to accept applications for Reverse Osmosis Rebate Program

Private well reverse osmosis system rebates are available to property owners of private wells with nitrate levels above 10 parts per million (ppm) in drinking water. Applicants may be eligible for up to \$4,000 in rebates for reverse osmosis system that is effective in removing nitrates to a level below 10 ppm. Rebate applications can include testing costs, purchase price of the system, and installation costs.

More information on the Reverse Osmosis Rebate Program, along with application forms and an instructional video can be found on Nebraska Department of Environment and Energy’s (NDEE) website at <http://dee.ne.gov/Publications/pages/22-051>. Inquiries can also be made to NDEE State Revolving Fund State Supervisor Steve McNulty at steve.mcnulty@nebraska.gov or 402-471-4200.

LCNRD is available to assist and provide information on the Reverse Osmosis Rebate Program and its requirements.

Submit completed applications to NDEE by June 30, 2024, with the installation of the Reverse Osmosis system completed by September 30, 2024.

For more information on any of these programs, events, and staff listings please see our website, lcnrd.nebraska.gov or contact the office 402-254-6758.

Visit our Facebook page to keep updated on what’s happening in LCNRD!

2024 Conservation Tree Program

Each spring, the Lewis and Clark Natural Resources District (LCNRD) distributes tree seedlings and provides planting services for conservation purposes such as windbreaks, shelterbelts, and wildlife habitats. Seedling orders are accepted through the end of March. Early ordering is encouraged as availability is limited. Assistance is available through local Natural Resources Conservation Services (NRCS) offices for preparing tree planting plans that meet your conservation needs.

AVAILABLE TREES, SHRUBS & PLANTS

Shrubs

- Plum, American
- Buffaloberry
- Chokecherry, McKenzie
- Chokeberry
- Cotoneaster, Peking
- Dogwood, Redosier
- Elderberry
- Lilac, Common
- Lilac, Vilosa
- Sandcherry
- Sumac, Skunkbush

Deciduous

- Catalpa
- Cottonwood
- Crabapple
- Hackberry
- Honeylocust
- Maple, Amur
- Maple, Silver
- Oak, Bur
- Oak, Red
- Oak, Swamp White
- Walnut, Black

Conifers

- Cedar, Eastern Red
- Pine, Jack
- Pine, Southwestern White
- Spruce, Colorado Blue
- Spruce, Norway

Plants

- Milkweed, Butterfly
- Milkweed, Swamp

Coco Weed Mats

- Lightweight
- Easy to install
- Easy to manage
- Biodegradable
- Affordable



Other species may be available upon request. For descriptions and pictures go to: <https://www.nrdnet.org/tree-program>

*Pricing

Seedlings Trees/ Shrubs/ Plants	\$32.50 per bundle	A bundle includes 25 seedlings per species
Small Acreage Package	\$37.50 per package	3 Colorado Blue Spruce, 2 Bur Oak, 2 Hackberry, 5 Chokecherry, 5 American Plum, 3 Redosier Dogwood
NEW Coco Weed Mats	\$45.00 per bundle	A bundle includes 25- (24” diameter mats) with 3 (6”) staples per mat (<i>available while supply lasts</i>)
Weed Mats	\$3.50 per mat	4’x4’ mat with 5 (8”) staples
Weed Barrier	\$225.00 per roll	500’ x 6’ roll
Staples	8 inch \$0.20 each	10 inch \$0.25 each

*All orders are subject to sales tax

Shelter Belts Working for You!

One LCNRD resident is now witnessing the benefit of planting a windbreak ten years after it was planted. Ray Kneifl, of Newcastle, said, “You don’t often see a windbreak’s true importance and utility until you have these extreme weather conditions, and then they come through.”

Planting windbreaks can help block prevailing winds and hold back large amounts of snow. If you are interested in planting a windbreak, contact your county NRCS office to design a plan. If you are looking to purchase tree or shrub seedling bundle(s), contact LCNRD by March 31st.



Ray Kneifl, Newcastle,
standing by his windbreak



Snow piled within the trees
instead of on the road

Whats New in the Bow Creek Watershed?

In the first three years of the Bow Creek Watershed Project (BCWP), over 3,800 acres have been enrolled in conservation practices. Annually, these practices are modeled to reduce *E. coli* by 57,785 billion CFUs, phosphorus by 4,613 pounds, nitrogen by 199,222 pounds, and sediment by 1,879 tons in Bow Creek.

This is a good start to improving water quality in Bow Creek, however, more practices are needed to bring the *E. coli* concentrations down to safe levels. *E. coli* indicates the presence of fecal matter in the water that may cause illness. Illnesses can be mild, lasting only a few days, to severe, lasting more than ten days. In rare cases severe illnesses have led to life-long health challenges. Luckily, no life-long illnesses have been reported in our communities. Water running into the creek brings soil particles and animal manure which are the main contributors to the *E. coli* levels.

Elevated water levels churn up sediment and can also release *E. coli* that is trapped in the sediment of the stream bed and banks. The keys to reducing *E. coli* include increasing water infiltration on crop and grazing lands and increasing the soil's water holding capacity. It is estimated that all acres in the watershed will need to be managed with no-till and cover crops, and a large amount of the watershed will need to have other practices implemented to reach safe *E. coli* levels.



Dr. Elaine Ingram demonstrating healthy soil biology during a Soil Health Lab.



Jimmy Emmons demonstrating soil compaction mitigation with cover crops.




Surface water quality sampling in Bow Creek.

Implementing new practices can present challenges and financial risks for farmers. The BCWP focuses on farmer education and increased cost-share incentives to help decrease both. Educational events are planned during the winter months, an educational field day is held during the summer, and pop-up workshops are held throughout the year.

Farmer evaluations from the field days show attendees increased their knowledge of BCWP incentive and education payment programs, the soil food web, conservation farming, and using compost and extracts on the farm. Attendees of events were asked what dollar value they thought the time spent at workshop would bring to their operation. Answers ranged from \$1,000 to \$50,000 with a total of \$162,000 recorded on nine evaluations. Likewise, attendees were asked what price per acre they believed implementing the ideas presented at the event could reduce expenses or increase profits in their own operation, answers ranged from \$10 to \$500 per acre.

A 2-day rotational grazing workshop will be held March 22-23, 2024. This workshop covers the basics of holistic grazing management, explains the theory and practices of rotational grazing, and gives producers an opportunity to create a grazing plan for their operation. Excursions to view rotational grazing systems in action close to Hartington are planned. This course is offered at no cost for LCNRD farmers, ranchers, and ag professionals through the Bow Creek watershed Project (a value of \$350 per person!). RSVP is requested for this event.

On-farm consultations are available to discuss opportunities at the farm and field level. Cost-share incentives are available for designated areas for qualifying producers, contact Becky Ravenkamp, Bow Creek Watershed Coordinator, for more information at 402-254-6758.



Bow Creek Watershed Project
presents:
2- Day Grazing Management Course
March 22nd & 23rd

Grazing Management Instructor:
Ralph Tate
(HMI Certified Educator)

Where: Hartington, NE 68739
When: 9:00 a.m. to 4:00 p.m. (Both days)

NO COST to farmers, ranchers, and ag professionals from LCNRD

Participants will learn:

- The key grazing principles for improving land health and productivity
- Steps to a simple approach to a grazing plan in order to better analyze and address critical grazing considerations
- How to determine forage inventory, animal needs, and grazing/ recovery periods
- How to create your own individual grazing plans

Bring your entire team responsible for grass and animal management!

Register by calling LCNRD at 402-254-6758 or online at lcnrd.nebraska.gov/bow-creek.

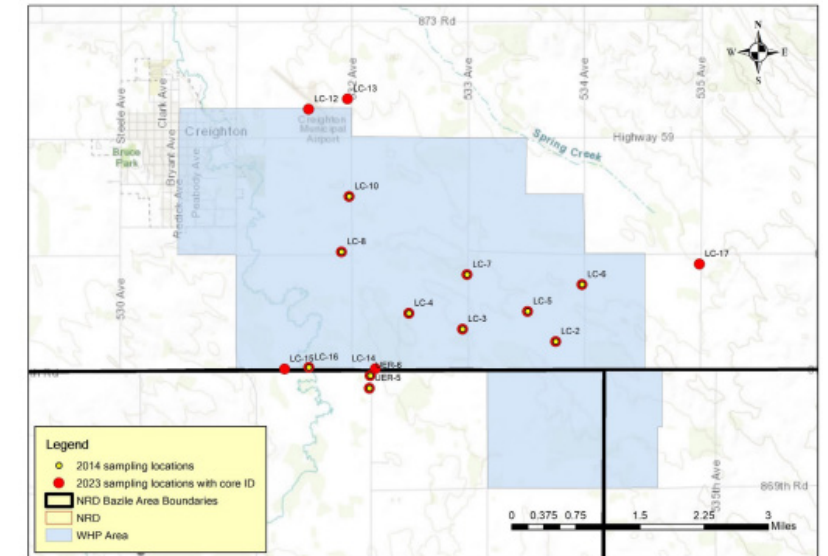
Vadose Zone Sampling in Bazile Groundwater Management Area

Dr. Dan Snow of the Nebraska Water Center and the University of Nebraska-Lincoln completed a vadose sampling project in the wellhead protection areas (WHPA) of different communities located within the Bazile Groundwater Management Area (BGMA). The vadose zone is the area of soil existing below the plant rooting depth and the top of the water table. Thirty-four vadose cores were collected in April 2021 and June 2022, with fourteen of these samples taken in LCNRD. Sample depth ranged from 10-100 feet depending on location with each sample intercepting the water table. Of the 14 core samples, 11 of the core samples were taken previously in the Creighton WHPA back in 2014. Looking at both sample years, there was an overall decrease in NO₃-N per acre in the vadose zone in the Creighton WHPA.

Excess nitrate from any N source has the possibility to leach below the plant root zone. It is important to use the 4 Rs of nutrient management: applying the right nutrients, at the right rate, at the right time, and in the right place. The chart and map are a summary from Dr. Snow's presentation, for the full presentation visit lcnrd.nebraska.gov/water-resources/water-quality.

Core ID	Site ID	2014-16 Avg. (lbs-N/acres)	2021-22 Avg. (lbs-N/acres)	Difference (lbs-N/acres)
LC-2	LCNRD	491	368	-123
LC-3	LCNRD	743	129	-614
LC-4	LCNRD	833	207	-626
LC-5	LCNRD	91	24	-67
LC-6	LCNRD	434	46	-388
LC-7	LCNRD	335	123	-212
LC-8	LCNRD	85	248	163
LC-10	LCNRD	240	90	-150
UER-5	UENRD	372	224	-148
UER-6	UENRD	269	122	-147
LC-16	LCNRD	73	92	19

Summary of 2021-22 results compared to the 2014-16 results



Sampling sites within the Creighton WHPA.

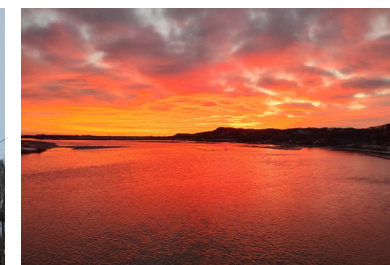
LCNRD Amateur Photo Contest Winners!

The LCNRD Amateur Photo Contest encourages residents of the district to get out and capture the natural wonders of the district. Check out the 2023 winning photos below.

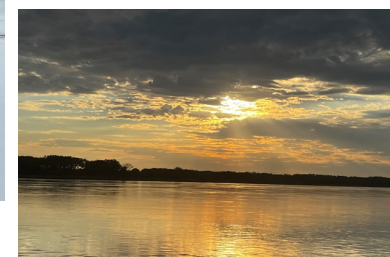
Thank you to everyone who participated, and we look forward to the 2024 contest starting mid-summer.



"Winter Visitors"
by Mary Suing- 1st place



"Missouri River Sunrise"
by Les Ernest- 2nd place



"Relaxing on the Missouri River"
by Mary Pinkelman- 3rd place

2024 NACD Stewardship Week

"May The Forest Be With You, Always" is the theme for Stewardship Week, April 28th through May 5th, in 2024. This observance is one of the largest national programs to promote natural resource conservation and has been celebrated for 68 years.

Forests are vital ecosystems that support diverse plant and animal life. They provide clean air and water, give us food, fuel, and other forest products, as well as help combat climate change by absorbing carbon dioxide.

By saying "May the forest be with you, always," it's a way of expressing a desire for people to be mindful of the forests and to maintain a strong connection with nature. It encourages us to protect and preserve these important natural resources so that they can continue to thrive and benefit us in the long run.

LCNRD promotes Stewardship Week by providing educational materials within the district at no charge. Consider taking advantage of the opportunity to promote conservation of our local natural resources and the role water plays in our daily lives.

