

# Cost-share Funding Available for Windbreak Renovation

The persistent Nebraska breeze is constantly bludgeoning the shelterbelts growing within the Lower Loup NRD. Snow, freezing rain, hail, and other elements do their fair share of damage, too. The damage to windbreaks caused by the recent drought has not been fully realized yet – trees will continue to succumb to the effects of drought despite recent precipitation – and pests have recently taken a toll on pine trees. Speaking of insect pests, the emerald ash borer has been documented from the easternmost and southeast portions of the Lower Loup NRD, and the ash trees growing elsewhere in the District are in its sights. On top of that, older trees are really showing their age in parts of the District.

Windbreaks do more than block the wind. They enhance crop production, anchor the soil and protect water quality, while also providing shelter for livestock and habitat for wildlife. Depending on what species are planted, windbreaks can provide food and building materials, people enjoy the aesthetic values of the plantings, and shelterbelts also offer recreational value in the form of hunting and other activities.

Landowners don't have to surrender to the onslaught and allow their shelterbelts to waste away. Cost-share funding is available for windbreak renovation through the Nebraska Soil and Water



*Conservation Forester Aron Lewis inspects a ponderosa pine while working on a windbreak renovation project in Nance County.*

Conservation Program. This funding will provide cost-share of 50% toward the cost of new trees and planting them. Other activities also qualify for cost-share.

Landowners with questions about windbreak renovation and cost-share within the Lower Loup NRD should contact Conservation Forester Aron Lewis at (308) 728-3221.

# Lower Loup NRD Announces Photo Contest Winners



Winning photographs have been chosen in the Lower Loup NRD's 2025 Photo Contest. In the competition that ran from December 2024 through May 15, 2025, twenty-four photographers from the Lower Loup NRD and across Nebraska submitted images depicting wildlife, landscapes, weather phenomena, wildflowers, recreation, architecture, and agriculture. The following photographers are recognized:



Lawrence Burman of Rockville was awarded first place for his image of a deep blue, cloud-streaked sky reflected in the tranquil waters of a Middle Loup River slough in Sherman County. Burman also won third place in the contest, for his photo of a bee hovering over a poppy.

Brent Tinkham of Ord won second place for his image of a prairie scene northeast of Sargent at sunset.

Burman's first-place image will be printed, framed, and displayed at the LLNRD Headquarters in Ord. His print will replace the 2024 winning print by Cheryl Albright of Ravenna. After the winning 2026 LLNRD Photo Contest image replaces it, Burman will be presented with his winning print. Both winning photographers will receive a prize package of Lower Loup NRD logo items.



2620 Airport Drive  
Ord, Nebraska 68862

Phone: 308-728-3221

Fax: 308-728-5669

E-mail: [info@llnrd.org](mailto:info@llnrd.org)

[LLNRD.org](http://LLNRD.org)

Nebraska's NRDs . . .

Protecting Lives, Protecting

Property, Protecting the Future.



**IN THE LOUP** is a publication of the Lower Loup Natural Resources District. It is published quarterly by the **LLNRD** and is distributed to the residents of the 16 counties that make up the District. **IN THE LOUP** is edited by Alan J. Bartels, Information & Education Coordinator.

## A Message from the Manager



LLNRD General Manager  
Russell Callan

The work we do at the Lower Loup NRD is best known to the District's farm families. That comes from sampling domestic wells, measuring static water levels in irrigation wells, inspecting

chemigation systems, issuing permits, certifying irrigated acres, and administering cost-share and conservation programs – to name a few. Many landowners also know us through our tree program. LLNRD technicians have planted more than 12 million trees.

NRDs perform responsibilities mandated by the Nebraska Legislature. If we haven't worked with you on the items mentioned above, there's still a good chance you've benefited from our work.

Development and management of recreational and park facilities is one of our mandated priorities. LLNRD operates three recreational areas. There are no fees to enter these public use sites. This newsletter includes a story about two

of them – Pibel Lake and Davis Creek recreation areas.

While these two areas vary greatly in size, they're the same in that we work hard to maintain these facilities for the use of our residents and visitors, while continually improving them. Both sites offer outdoor recreation and opportunities for time with loved ones while enjoying the important natural resources of our District.

The 11-acre LLNRD Arboretum is adjacent to our headquarters office in Ord. The trail loop is 1/3 of a mile long and connects to the City of Ord's Hike and Bike Trail. I see people walking, jogging, and cycling out there every day. I could probably benefit from doing a lap or two out there myself.

The Arboretum is the site of our annual MUDFEST educational event – which reminds me of other work we do with constituents who we may not cross paths with otherwise.

Our Board recently placed "Promotion of the LLNRD to the Public" within their top three priorities. Our education

and outreach efforts flow through our Information and Education department. Those staffers inform the public about policy and rule changes, new rules, hearing dates, Board vacancies, and legal notices – often through press releases and website news articles. And they do fun and informational social media posts about things like LLNRD field work activities, or sometimes they simply post a scenic photo taken somewhere in our District.

Outreach activities include our Spring Birding Event and annual Photo Contest. We know that people who come see us for a chemigation permit are part of our agricultural community, but those who participate in the birding and photography events come from all walks of life. You know what, we've found that farmers enjoy photography and birdwatching, too!

Much of what we do is related to tree planting and our requirements related to agriculture. But that doesn't directly reach all of the 70,000+ residents of the District. Through our outreach, education, and other work, we hope to positively impact your life, too.



VOLUME 17, ISSUE 3 SUMMER 2025

# IN THE LOUP

## Water Conservation is Important Even When It's Raining

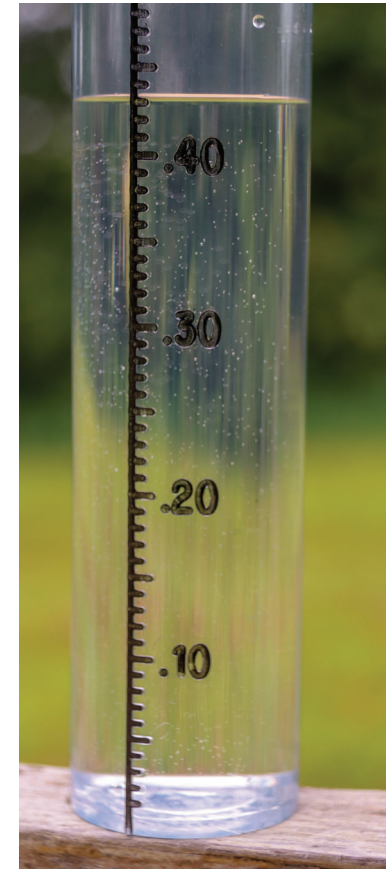
After consecutive growing seasons of drought conditions that included below average precipitation, many are relieved to see the return of rainfall across the Lower Loup NRD. To make sure that the groundwater supply of the District sees a benefit from all of this precipitation, it is important that agricultural producers use water management practices that will maximize the water use efficiency of their fields.

Over-application of irrigation water is one of the leading causes of nutrients – including nitrates – leaching from crop fields and into the groundwater systems from which most Nebraskans get their drinking water. Over-application of irrigation water can also lead to reduced yields by turning soil anaerobic. By making sure that fields actually need to be irrigated before turning on the pivot, producers are helping to reduce water pollution and slowing groundwater depletion, while also improving the chances of a better yield.

Utilizing soil moisture probes is a proven way to manage water. Moisture probes can give ag producers a real time view of how much moisture is available to a crop, which is helpful when making decisions on when to irrigate.

Timing is everything when it comes to yields. Getting water and nutrients to the crop when it needs them most is the most important component of achieving a good yield. By using soil moisture sensors in conjunction with crop water use numbers – gathered either from on-farm weather monitoring equipment or from online data collected by remote weather stations – producers can schedule when irrigation will need to occur and then plan accordingly. This allows producers to take precipitation into account. If it rains

right before a producer would have irrigated a field, that farmer can use soil moisture probes to determine just how much that precipitation event helped that particular field. From there, planned irrigation amounts can be adjusted accordingly.



Let's not forget the easy stuff, either! If a pivot end gun is shooting over a road or onto land that does not need to be irrigated, it is the producer's responsibility to rectify that issue to conserve that water. Producers still employing flood irrigation need to secure the ends of their rows so that excess water does not run off the field and go to waste.

Nebraska's water resources belong to all of the state's residents. As Nebraska's largest water users, irrigators play an important role in managing those resources.



Visit [LLNRD.org](http://LLNRD.org) for news, events, forms, applications, rules, newsletters, to opt-in for SMS alerts, and more from LLNRD.



# LLNRD and Nebraska DWEE Partner for Beach Watch



LLNRD Water Programs Assistant LeeAnn Smith collects water samples from the Cedar River in Wheeler County as part of the Basin Rotation Monitoring Program.

Nebraska may be landlocked, but the sandy beaches surrounding lakes in central Nebraska attract throngs of summer enthusiasts, including anglers, inner tubers, paddlers, swimmers, and others who love the water. With the safety of the public in mind, LLNRD partners with the Nebraska Department of Water, Environment, and Energy (DWEE) for the Public Beach Monitoring Program. We call it Beach Watch.

Toxic algae can bring aquatic fun to a halt. From May through September LLNRD technicians take weekly water samples at Davis Creek, Sherman, and Calamus reservoirs, and also Pibel Lake.

One set of samples is overnighted to the Department of Health and Human Services Public Health Environmental Laboratory in Lincoln where they are tested for microcystin algae – the organism that causes harmful algal blooms. At LLNRD headquarters in Ord, we test the other samples for *E. coli* bacteria.

Ingesting water containing high levels of *E. coli* bacteria – primarily associated with fecal matter – can

cause illness in the human intestinal tract. Animal sources of *E. coli* bacteria from livestock and wildlife waste can enter water sources as runoff from precipitation events. Human waste can enter water sources from improperly maintained septic systems and discharges of untreated wastewater.

Harmful algal toxins like microcystin are produced by cyanobacteria commonly referred to as blue-green algae. These toxins can cause lesions, rashes, and blisters on people exposed while engaged in aquatic activities. If algal toxins are swallowed, headaches, nausea, muscle or stomach pain, diarrhea, or vomiting may result. Severe cases can include seizures, liver or respiratory failure, or death. Pets can also die from ingesting microcystin toxin.

Beach Watch allows the public to view beach monitoring results. Fifty-six beaches on 51 lakes are monitored with approximately 1,200 samples assessed annually for each parameter.

When a lake samples at or above 8 parts per billion (ppb) of microcystin, DWEE and the Nebraska Department of Health and Human Services issue

a joint Health Alert, and designated swimming beaches are closed until the lake samples below 8 ppb. When a beach is on Health Alert, it's recommended that there is no contact with the water.

LLNRD also partners with DWEE in the Basin Rotation Monitoring Program. Monitoring is done on a six-year rotation in the 13 major river basins in the state. Monitoring in each basin, during its rotation year, is conducted at approximately 40 sites on a weekly basis May through September. In 2025, LLNRD is taking samples on the Middle Loup River near Sargent, the North Loup River near Taylor, the Calamus River along US Highway 183, the Cedar River along US Highway 281, Mira Creek in North Loup, and Dane Creek in Ord. Through the program, general water quality trends are established.

Questions about the Public Beach Monitoring Program or the Basin Rotation Monitoring Program can be directed to the Nebraska DWEE Monitoring Section at (402) 471-2186, or e-mail BeachWatch@Nebraska.gov. Find the link to the Interactive Harmful Algal Bloom Map at [dee.nebraska.gov/](http://dee.nebraska.gov/).

# Testing Private Wells Protects the Health of Residents



Most rural Nebraskans receive their drinking water from private wells drilled on their property. Public water supplies routinely test for contaminants to ensure that the water supplied to their communities is safe to drink. However, private well owners have no way of knowing the safety of their water supply unless they run their own analysis.

It is recommended that rural residents test their private well(s) a minimum of once per year to test for known contaminants such as nitrates and bacteria.

The large precipitation events that we have had recently are another concern when it comes to water quality, especially in agricultural settings where nitrogen fertilizers are used to grow corn and soybeans. Shallow wells are a concern as nutrients such as nitrate can move easily through the vadose zone and end up in the aquifer that private wells tap into to obtain water.

Recent LLNRD studies indicate that in certain soil types, nitrogen fertilizers can move more than an inch per day through the soil profile and toward groundwater resources.

The Environmental Protection Agency's current safe drinking water standard for nitrate contamination is 10 parts per million. This limit is established to ensure public health and safety, but studies now show that even lower levels of nitrate can be detrimental to human health.

Again, for the safety of the rural families who rely on private wells, testing them at least once a year can ensure safe drinking water and provide peace of mind. There are labs across the state that offer water testing services. Reach out to the Lower Loup NRD for additional information.

# Chemigation Safety Training



Coordinator followed with a presentation on the dangers of high voltage, and discussion on when and how power districts should be involved in solving irrigation system electrical issues. CPNRD's David Carr led discussion on recorded injuries and deaths while working on irrigation systems, and how to avoid dangerous situations. The day was capped with demonstrations from DPPD and Downey Drilling showcasing the dangers of high voltage power and how to safely approach electrical equipment in the field. LLNRD values the safety of their staff and all the operators that we serve.

LLNRD participated in a Chemigation Inspection Safety Training recently at the Dawson Public Power District (DPPD) headquarters in Lexington. The event was held by staff from the Central Platte NRD (CPNRD), with field and support staff from the Tri-Basin, Twin Platte, and Lower Loup NRDs in attendance.

The theme for the training was electrical safety, with presentations on how to safely check for voltage on irrigation and chemigation equipment, and how to ensure the safety of both the inspector and operator when performing an inspection.

Steve Melvin of UNL Extension went over the basics of chemigation inspections and highlighted the dangers of malfunctioning equipment. Dean Kunkee, DPPD Safety

# LLNRD Recreation Areas Are Popular Summertime Destinations

The Lower Loup NRD's two most popular recreation areas are as different as the amenities they offer.



**Davis Creek Recreation Area** is 5.5 miles south of North Loup. Water from the Calamus and Loup rivers is delivered to Davis Creek Reservoir via Mirdan Canal. The water is temporarily stored in Davis Creek Reservoir as supply for agricultural irrigation, resulting in significant water fluctuations during summer. The portion of the reservoir used for irrigation contains 30,986 acre-feet of water, a surface area of 1,140 acres, and 24 miles of shoreline. Water depth at the dam is 88 feet.

LLNRD operates & maintains Davis Creek Recreation Area. The 157-acre recreation area is located on the west side of the reservoir and includes boat ramps, one boat dock, a handicap accessible fishing pier, Wi-Fi, 67 RV electric camping pads, 5.5 miles of trails, fire rings, picnic tables, grills, potable water, an RV dump station, playground, fish cleaning station, five vault toilets, a coin-operated shower house with restroom facilities, and tent

camping sites including a handicap accessible site. There is no fee to enter the recreation area. In spring 2025, LLNRD completed a paving project on the road through the recreation area.

RV campsites are \$30 per night. Half of the sites may be reserved at ReserveAmerica.com. The other half are available on a first-come, first-served basis. No fee is charged for tent camping. The recreation area's five picnic shelters may also be reserved at ReserveAmerica.com. Find the new Davis Creek Recreation Area brochure under the Recreation tab at LLNRD.org.



**Pibel Lake Recreation Area** is a 72-acre facility, including the 24-acre lake. What this recreation area in southern Wheeler County lacks in size (45 Pibel Lakes could fit into one Davis Creek Reservoir) it more than makes up for with natural beauty and peaceful relaxation. Boats are limited to no-wake speeds only.

The lake's origin began with an irrigation project on Clear Creek in the late 1800s. The Nebraska Game and Parks Commission purchased the

property in 1930, and had renovated the lake prior to LLNRD taking ownership in 2012. The lake is stocked with bluegill, largemouth bass, and channel catfish.

After taking ownership, the Lower Loup NRD removed several hazardous large trees, and ADA-compliant handicap parking was created. Flood damage from 2009 and 2010 was also repaired. New playground equipment has been installed thanks in part to a generous donation from former area resident Hope Peterson, and a recreational trail is being considered. Part of the funding for the project came from the Nebraska Environmental Trust.

Early in 2025, the Nebraska Forest Service announced that a new Nebraska Champion eastern cottonwood tree had been confirmed. This behemoth of a tree grows within a cluster of trees toward the northeast side of Pibel Lake. That tree is also the National Champion eastern cottonwood, meaning it's the largest tree of its kind known in the entire United States! A sign at the information kiosk near the southwest entrance of the lake points out the location of the tree. The best access is via a mowed trail beginning at the pedestrian bridge at the northwest corner of the lake.

Learn more about the Lower Loup NRD and its recreation areas at LLNRD.org.

## Chemigation: Permit Always Required

The Nebraska Chemigation Act and Title 195 – Chemigation Regulations – place requirements on anyone who uses chemigation in Nebraska.

A permit issued by the Lower Loup NRD is required before chemigation/fertigation can take place on any agricultural field within the District. A currently licensed chemigator must be associated with each active chemigation permit. No exceptions can be made.

Contact the Lower Loup NRD at (308) 728-3221 with questions or to schedule a chemigation inspection. Chemigation Permit Applications are available at LLNRD.org.