

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.

Road Closure Scheduled for Davis Creek Recreation Area

To better serve visitors, the access road through Davis Creek Recreation Area will close beginning Oct. 1, 2023, for a paving project. The area is south of the community of North Loup.

Continual improvements to Davis Creek Recreation Area by the Lower Loup NRD have led to growing visitation of the area and increasing use of existing roadways. Campground reservations will not be accepted during the closure. The road improvement project is being timed to avoid the busy summer recreation season.

Access to the recreation area via road will not be permitted during the entirety of the road improvement project.

The project will include paving the

existing 2-lane gravel access road from the recreation area entrance through the exit of the east campground loop. Parking areas near the shower house will be paved as part of this project, and drainage improvements will also occur.

The project is being funded through Bureau of Reclamation Title 28 grant funds. "The Lower Loup NRD has previously used grant funds from Title 28 for the Davis Creek campground expansion in 2017, to build the RV dump, the playgrounds, and the maintenance shed," said LLNRD Assistant General Manager Tylr Naprstek.

This latest grant will help pave at least 2,260 feet of the road. The Lower

Loup NRD is actively seeking funding opportunities to pave the rest of the road.

The closure is tentatively planned through Dec. 31, 2023, but LLNRD officials hope to reopen the improved access road earlier if possible. Questions can be directed to LLNRD at (308) 728-3221.



The temporary road closure at Davis Creek Recreation Area will allow for paving of the access road to many of the area's amenities.

IN THE LOUP

Nitrogen Credit- Irrigation Water

In times of high inflation, it seems we search for every bargain we can get. So why overspend on nitrogen fertilizer when you can credit your irrigation water toward your nitrogen budget?

Every PPM (parts per million) of nitrate/nitrogen in your irrigation water adds 0.23 pounds of nitrogen per acre per inch.

In a year like 2022, when irrigation use was up across the state, if you applied 12 inches of irrigation water that contained a nitrate level of 10 PPM, you would have

added 27 pounds of nitrogen per acre.

The Lower Loup NRD (LLNRD) tests irrigation wells in the District annually. If your well tests at 10 PPM or higher, you should include the nitrogen in that water as part of your annual fertilization routine. That is a nitrogen credit.

Failure to consider the nitrates already in your irrigation water can lead to over-application, which is expensive. Nitrogen not used by the crop can leach below the root zone and toward groundwater

aquifers. Nitrates that end up in municipal and domestic wells pose a health threat to anyone who drinks that water. The Environmental Protection Agency's maximum contaminant level for nitrates is 10 ppm.

Soil sampling can help producers dial in the amount of nitrogen that is actually needed. It takes 0.7 pounds of nitrogen to raise a bushel of corn, much less than what is often applied.

The University of Nebraska-Lincoln suggests averaging the last five years of irrigation water used and taking 80% of that average to calculate your nitrogen credit for the upcoming year.

In the example above, if your five-year average is 12 inches of water applied and your water tests at 10 PPM, you could credit 22.1 pounds per acre for the upcoming year (.8 x 10 x .23 x 12).

Don't overspend on your fertilizer. Credit your irrigation water!



Aerial view of a pivot in Greeley County.

INSIDE THIS ISSUE:

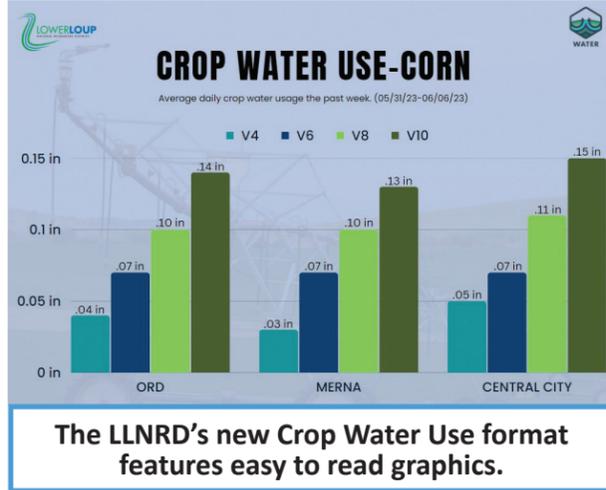
Crop Water Use Reports	2
Photo Contest Winners	2
Message From The Manager	3
Proper End Gun Use	3
Road Closure for Davis Creek	4

Updated Crop Water Use Reports from Lower Loup NRD

The Lower Loup NRD has updated its Crop Water Use Report format. The updated layout consolidates data from three regional weather stations into useful infographics updated every Wednesday through the growing season. The updated report gives average daily water use data for corn, soybeans, and potatoes with a series of easy-to-read graphs.

The first Crop Water Use Reports date to 1977, and used data collected from four manned weather stations. The

current data is recorded by automated weather stations in the High Plains Regional Climate Center network. View these reports by visiting llnrd.org, going to the Resources tab, and clicking on Crop Water Use. Website users can also enter this URL to be taken directly to the page: (<https://www.llnrd.org/resources/crop-water-use.html>).



LLNRD Announces Photo Contest Winners

The Lower Loup NRD's annual Photo Contest was established to encourage people to explore LLNRD recreation areas, and other outdoor resources and activities. Twenty-seven photographers from across Nebraska and beyond submitted 175 images for the LLNRD's 2023 Photo Contest. Subjects photographed included wildlife, landscapes, weather phenomena, wildflowers, recreation, and agriculture.

Robyn Koelling of Ord won first place for an image of a soybean field at sunset. Ord resident Ryan Flynn took second place for an image showing geese decoys silhouetted on the North Loup River. AJ Dahm of Schaller, Iowa, won third place for an image of cattle grazing on a foggy morning near the Calamus River in Loup County.

"The Lower Loup NRD is the largest Natural Resources District in Nebraska,"

said Information and Education Coordinator Alan Bartels. "From the Sandhills in the western part of the District, to farms in the east and 514 miles of rivers in between, the photo opportunities in the District are endless. We hope that when people explore the Lower Loup NRD, that they bring their camera along for the adventure." The 2024 LLNRD Photo Contest will open in November 2023.



Robyn Koelling's 1st place photo.



Above - Ryan Flynn's 2nd place photo.

Below - AJ Dahm's 3rd place photo.



A Message From The Manager

LLNRD Drought Management Plan Requires Flow Meters in Some Areas

Drought has been on a lot of people's minds lately – mine, too. Recent rains have brought relief to some parts of Nebraska, but unfortunately, much of our District remains very dry.

Even during times of adequate precipitation, we know that drought will someday come. Instead of waiting for drought and then scrambling to deal with it, in 2021, the Lower Loup NRD began developing a Drought Management Plan. We didn't do this alone. Groundwater and surface water irrigators, ranchers, city administrators, hydropower industry representatives, NRD staff and directors, and other stakeholders joined for a series of meetings centered around a mock drought scenario based on actual recent conditions.

Every drought event is different with varying impacts. Identifying and responding effectively to droughts as they occur is technically and politically challenging. A pre-established plan, developed before drought occurs, can help ease these pressures and enable

decision makers to respond in an informed and transparent way.

Conservation, regulation, and the creation of drought zones were among the topics discussed. Participants shared how those actions, and the activities of neighbors, could impact their own operations. This Drought Advisory Group also discussed possible drought response protocol.

The plan was developed to be a guide to the Lower Loup NRD Board of Directors to enhance drought response. Our Board of Directors approved the plan on November 17, 2022.

Less than a year later, and according to the plan's guidelines, drought conditions rated as "Extreme" have triggered a response. The Lower Loup NRD's Water Resources Committee looked at the situation during its July 2023 meeting, ultimately recommending to the full Board to initiate the process to require flow meters on all irrigation systems in Drought Zones 18 (northern Buffalo and extreme northwest Hall counties) and 20 (parts of southern Nance and Platte counties, and northeast Butler County).



LLNRD General Manager Russell Callan

The Board of Directors voted at its July 2023 meeting to begin that process.

That process includes a yet-to-be scheduled public hearing. If approved, irrigators would have two years to install flow meters on all irrigation systems in Drought Zones 18 and 20. Flow meters would enable LLNRD to monitor irrigation use trends.

We will continue to keep the public informed through this newsletter and other means. Read our Drought Management Plan, which includes a Drought Zone map, at llnrd.org. My staff and I are available if you have questions. (308) 728-3221.

Aim for Proper End Gun Use

With irrigation season in full swing, now is a good time to make sure you are using your irrigation system responsibly. The Lower Loup NRD is charged with the conservation of groundwater. Section 1 of Nebraska state statute 46-708 states that "In order to conserve ground water supplies and to prevent the inefficient or improper runoff of such ground water, each person who uses ground water irrigation in the state shall take action to control or prevent the runoff of water used in such irrigation."

One way to improve the efficiency and efficacy of a center-pivot irrigation

system is to make sure the end gun is set up properly. If the end gun of your pivot system waters beyond the limit of a field, whether to a neighboring property or road, that is groundwater runoff that could be prevented. To prevent this costly, illegal waste, irrigators can install equipment to shut off the end gun in areas where overspray is likely. Overspraying end guns can also put producers in violation of the Lower Loup NRD's required Certification of Irrigated Acres, which may result in double the number of acres in violation being set aside the following year. In the case of a gravity irrigation system, to prevent flooding and

runoff from your field, make sure to not pump more water than can infiltrate the soil.



Proper end gun control protects public safety and conserves water.