

# LLNRD Website offers information on Irrigated Acres Certification



*Conversion from gravity irrigation to pivot irrigation can lead to unintentional changes to the number of acres being irrigated and can leave a producer out of compliance.*

Landowners who have recently purchased land with irrigated acres or are curious to see how many certified irrigated acres are associated with their property can check the status of their certification on the Lower Loup NRD website, LLNRD.org. Landowners, realtors, lawyers, or other agents involved with the purchase of irrigated acres can download the form or contact LLNRD. It is imperative and required that property be kept up to date with LLNRD. In addition to ownership changes, warranty deed revisions and field boundary changes also require updating irrigated acres certification.

After checking the website, if there appears to be out-of-date records, interested parties are encouraged to call the LLNRD office at (308) 728-3221 to make the necessary changes. LLNRD staff members are available for in-person appointments. The goal is to update the certification so all fields remain in compliance with groundwater rules and regulations.

Reviewing certification is easy. There is an interactive map available at LLNRD.org under the Programs menu, listed as Irrigated Acres. The interactive Map Viewer allows users to select their specific field and view the current pdf version of filed records. Navigate to the field, select it, and view the attachments. The map can be accessed by following this QR code.



Use the QR code to get to the LLNRD's interactive Map Viewer.



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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

Nebraska's agricultural producers are known far and wide for being good stewards of the land. That reminds me of something that a rancher friend once told me. He said, "If you take good care of the land, the land will take care of you."

I believe that the same philosophy should be applied to all of our natural resources.

Elsewhere in this issue of the *In The Loup* newsletter readers will find an article about flow meter requirements coming to several Water Quantity Management Sub-Areas within the Lower Loup NRD. In that article there is a lot of technical information, as well as detailed descriptions of processes that explain how the Lower Loup NRD

Board of Directors arrived at their decisions to implement those controls.

Those decisions are data driven, based partially on declining static water levels and/or well interference issues in parts of the District. This data is gathered by LLNRD technicians each spring and fall. In accordance with the laws of the State of Nebraska, among other purposes and responsibilities, Nebraska's Natural Resources Districts are tasked with the conservation of surface water and groundwater. So, when static water levels show downward trends and historically low levels, we must act.

The installation of flow meters in the control areas will allow those producers to look at the meter and know instantly how much water they have been applying. No guessing, no estimates. That is why some producers have used flow meters voluntarily for years. It just make sense. By knowing how much water you use, you learn

how much you actually need. These flow meters will also enhance the Lower Loup NRD's efforts to monitor the aquifer in each of the Water Quantity Management Sub-Areas as well as gauging the health of the aquifer District-wide.

The hundreds of irrigation wells in each of these Sub-Areas draw from the same aquifer resources that the residents of our District (and most Nebraskans) rely on for their drinking water and other domestic uses. This water belongs to all Nebraskans.

As good stewards of Nebraska's natural resources, you and I know that we cannot manage what we don't measure. And if we take care of our water resources in terms of both quantity and quality, those water resources will be there to take care of us and those who will come after us.



## Why Fall Fertilization is Not Recommended



*Research shows that applying fertilizer in the fall, like the fall application pictured, is not efficient and it leads to expensive fertilizer inputs often being leached out of the reach of crops. Those chemicals then move toward groundwater resources, threatening the health of the people who rely on those resources for their drinking water and other water needs.*

While it may seem convenient to apply fertilizer in the fall when the workload is lighter and fields are open, fall fertilization of corn is generally not recommended due to environmental and agronomic risks. The timing of nutrient application plays a major role in nutrient efficiency, crop uptake, and long-term soil health.

The primary concern with fall fertilization is nitrogen loss. Nitrogen applied in the fall is highly vulnerable to leaching before the corn crop can use it the following crop season. In most soils these fertilizers continue to convert to nitrate over winter. Once in the nitrate form, it's highly mobile and easily lost through groundwater leaching or surface runoff. This not only wastes input dollars but also increases

the risk of water contamination that can negatively impact human health and also the health of livestock and wildlife.

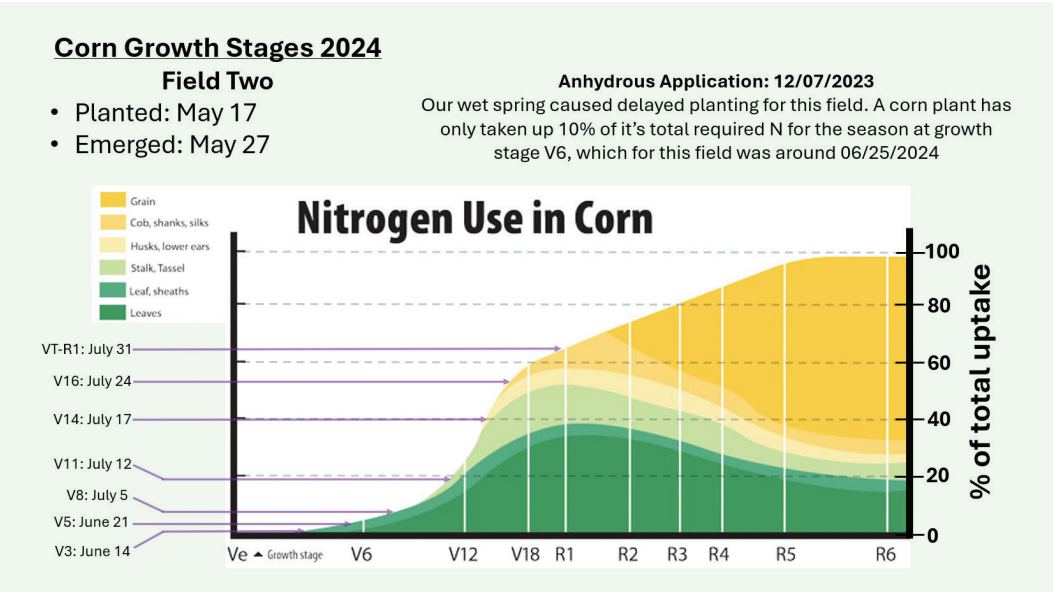
Soil temperature and microbial activity further complicate fall applications. Warm fall conditions can accelerate nitrification, while fluctuating

(continues on page 3)



Visit [LLNRD.org](http://LLNRD.org) to opt-in for SMS (text) alerts from Lower Loup NRD.





*The graph shows the nitrogen uptake of corn throughout the growing season. Corn doesn't start to uptake nitrogen until the middle of June, further emphasizing the need to time fertilizer application to when the plant needs it.*

*(continued from page 1)*

freeze-thaw cycles can change soil structure and promote nutrient movement out of the root zone. By spring, a significant portion of the applied nitrogen may already be unavailable to the crop, forcing producers to reapply or potentially face yield losses.

From an agronomic perspective, split or spring-applied fertilizer strategies are more efficient and environmentally

responsible. Applying nitrogen closer to planting – or even in-season through side dress or chemigation – matches crop demand more closely, reducing losses and improving yield response. Phosphorus and potassium are more stable, but crops are able to better utilize them when application is timed based on soil tests and crop rotation plans.

For more information on in-season nitrogen management, producers can

refer to Nebraska Extension's NebGuide G2365 from the University of Nebraska – Lincoln's Institute of Agriculture and Natural Resources. This publication, which was published in 2024, briefly reviews the history of nitrogen management research and fertilizer recommendations for corn in Nebraska, and the need for improved approaches for nitrogen management to increase profitability and reduce environmental impacts of fertilizer use. Based on research over the past 20 years in Nebraska, it describes approaches for using crop canopy sensor information to manage nitrogen during the growing season, rather than pre-season application, for irrigated corn production.

In short, while fall fertilization may seem to save time upfront, it often costs more in the long run. Waiting until spring or adopting precision nutrient management ensures that more fertilizer dollars stay in the field, not in the groundwater resources that most Nebraskans rely on each day for their drinking water and other water needs.

# Flow Meter Requirements Coming for Water Quantity Management Sub-Areas 18, 19 and 20

Previously announced deadlines for the required installation of flow meters in Water Quantity Management Sub-Areas 18, 19, and 20 are approaching.

## Water Quantity Management Sub-Areas 18 & 20

The Lower Loup NRD Board of Directors, on Jan. 25, 2024 – following a public hearing on that same date – voted to designate Water Management Areas 18 and 20 as Water Quantity Management Sub-Areas.

Area 18 includes northern Buffalo County and extreme northwest Hall County. Area 20 includes parts of southern Nance and Platte counties, and northwest Butler County.

In 2023, Drought Zones 18 and 20 triggered the Lower Loup NRD's Drought Management Plan's Severe Drought Management Actions based on 1) the U.S. Drought Monitor Status listing the Areas as greater than 50% Severe Drought and 2) greater than 50% of Areas' static groundwater levels within the drought zones at or below 10% of the Areas' wells 25-year historical static water level range. Drought Impact Update Meetings were held in Monroe and Pleasanton in November 2023.

As a result of the Board's decision, and as previously reported in the LLNRD's *In The Loup* newsletter and at LLNRD.org, on the LLNRD's social media channels, and in press releases sent to the District's media outlets, flow meters are required to be installed on all irrigation water sources used for row-crop farming within Water Quantity Management Sub-Areas 18 and 20 by February 2026.

## Water Quantity Management Sub-Area 19

On February 20, 2025 – following a public hearing on that same date – the Lower Loup NRD Board of Directors voted to designate Water Management Area 19 as a Water Quantity Management Sub-Area.

*Flow meters installed as part of requirements implemented by the LLNRD Board of Directors in Water Quantity Management Sub-Areas 18, 19, and 20 must be on the Lower Loup Natural Resources District Approved Flow Meter List (June 2025).*

Area 19 encompasses the portions of Howard, Merrick, and Nance counties that are south/southeast of the Middle Loup and Loup rivers.

In 2024, Area 19 triggered the Lower Loup NRD's Drought Management Plan's Severe Drought Management Actions based on 1) the U.S. Drought Monitor Status listing the Area as greater than 50% Severe Drought and 2) greater than 50% of Area's static groundwater levels within the drought zones at or below 10% of the Area's wells 25-year historical static water level range. Public meetings were held in Palmer in November 2024 and St. Paul in December 2024.

As a result of the Board's decision, and as previously reported in the LLNRD's *In The Loup* newsletter and at LLNRD.org, on the LLNRD's social media channels, and in press releases sent to the District's media outlets, flow meters are required to be installed on all irrigation water sources used for row-crop farming within Area 19 by February 2027.



## Cost-share, Requirements, Resources

The LLNRD Board also approved cost-share of 50% toward the purchase of a flow meter, flow conditioners, straightening vanes, check valves, and canopy covers – up to \$2,000 per field for producers in the newly designated Water Quantity Management Sub-Areas.

"You can't manage what you don't measure," said Lower Loup NRD Assistant General Manager Tylr Naprstek. "Installation of flow meters in these Water Quantity Management Sub-Areas, each of which has experienced a downward trend of historically low static groundwater levels, will allow the Lower Loup NRD to gauge groundwater stress and recharge while giving agricultural producers the ability to monitor their own water use. In other control areas, when flow meters were required and ag producers were able to see how much water they were actually using, many began using less irrigation water without negatively impacting their yield."

Flow meters must be installed by a trained contractor and only flow meters included on the LLNRD Approved Flow Meter List will be considered for cost-share. Completed cost-share forms must be returned to LLNRD for approval prior to flow meter purchase/installation. The above-mentioned control measures do not apply to fields watered by surface water only.

Find the LLNRD's Drought Management Plan, Approved Flow Meter List, and Flow Meter Cost-share Form at [LLNRD.org](https://llnrd.org).

# LLNRD Educational Events Teach About Natural Resources

Education has been a core part of the work of Nebraska's Natural Resources Districts since being founded in 1972. Part of that work includes relaying policies, rule changes, and recent scientific findings to constituents. The Lower Loup NRD also provides education for adults in areas such as groundwater management, wellhead protection, chemigation, and nitrogen certification. We also educate youth.

We aren't going to bore a bunch of fourth graders with an hour-long presentation about a scientific study documenting the movement of nitrates through the soil profile and toward drinking water resources. But we do teach those kids about stewardship of natural resources through activities where they have so much fun that they might not realize they are learning.

MUDFEST is one of those experiences. This event teaches youth about soil and water – two of our most important natural resources. Each September, fourth graders from area schools fill the LLNRD Arboretum in Ord to learn through exciting sessions such as Water Wheel of Fortune, the Infiltration Station, and Water Rockets. We don't do it alone. Presenters from the Natural Resources Conservation Service, Nebraska Extension, and other NRDs are among the experts who share their expertise during the half-day event that has the children laughing, learning, and leaves them a little muddy.

"No matter where else our youth learn about the natural world, I hope that MUDFEST and the LLNRD's other educational events help our District's youngsters develop a respect for natural resources that leads to them conserving those resources as adults," said Information and Education Coordinator Alan Bartels.

Adventure Camp about the Environment (ACE Camp) is another big event for LLNRD. ACE Camp was left homeless after fire devastated the Nebraska State 4-H Camp near Halsey. The four-day, three-night summer camp for students



*The Lower Loup NRD recently hosted the Ord Elementary School Kindergarteners for a field trip at the LLNRD's Aagaard Farm. The Nature Scavenger Hunt, and making birdfeeders out of pinecones, were highlights of the educational event.*

entering seventh or eighth grades now takes place near Burwell at Kamp Kaleo. Students learn about natural resources in a traditional summer camp setting while making friendships with fellow campers from across Nebraska.

The LLNRD's education efforts also include field trips and classroom visits, Land Judging contests and Arbor Day events, Nebraska State Fair and Husker Harvest Days outreach, and helping other NRDs with their educational events.

Learn more at [LLNRD.org/about/education](https://llnrd.org/about/education).

**ACE Camp 2026 will take place June 21-24 near Burwell at Kamp Kaleo. Register by June 1. Tuition is \$235 per camper. Check with your NRD for scholarship opportunities. Learn more on Facebook at "Adventure Camp about the Environment (ACE Camp)" or contact LLNRD at (308) 728-3221.**



*The Lower Loup NRD's new Newsflash micro-podcast provides important information, usually in a minute or less.*

## New LLNRD Podcast Gets the Word Out Fast

The Lower Loup NRD is always looking for new ways to get the news out about what is going on in the District, and now we have an exciting new way to spread the word. Introducing the "In The Loup Newsflash!," a micro-podcast style video series that is hosted by LLNRD staff. The goal of Newsflash is to deliver LLNRD updates and stories in quick, bite-sized videos that can easily fit into everyone's busy schedule.

Newsflash videos will be around a minute long (or less) and several have already been produced. Find Newsflash videos on Facebook and Instagram Reels, YouTube Shorts, and on the LLNRD.org website under the "About" tab.

Residents with an idea for a Newsflash podcast topic can reach the LLNRD at [info@llnrd.org](mailto:info@llnrd.org).