

North Platte Natural Resources District Irrigation Newsletter

Issue 10

Surface Water Registration

The North Platte NRD is currently mailing surface water registration paperwork to landowners who irrigate with surface water only. If you receive a packet, please review the materials carefully and follow the instructions to complete your registration and return the signed forms.

This registration process is part of the NRD's effort to improve nitrate management and maintain accurate, up-to-date records. Beginning January 1, 2025, all surface water irrigated acres must be registered and approved by the NRD under updated rules and regulations. This registration will not impact your existing water rights or any agreements with your Surface Water District.

Registering your acres ensures they are associated with annual nitrogen sample data in the NRD's database, supporting better groundwater protection and resource planning.

As of February, registration materials have been distributed by mail to Farmers Irrigation District, Gering–Fort Laramie Irrigation District, Lisco Irrigation District, Enterprise Irrigation District, and Pathfinder Irrigation District. If you have not received any paperwork for these irrigation districts, please reach out to the North Platte NRD.



Welcome to Issue #10 of the Irrigation Newsletter! This newsletter is intended to inform **groundwater and surface water irrigators** within the District. The information included in this newsletter is made possible with the help of the University of Nebraska Extension and USDA-NRCS.

Visit or Contact Us

100547 Airport Road

Scottsbluff, NE

308-632-2749

www.npnrd.org





North Platte NRD Urban Conference

At the KNEB Home & Garden Expo

Saturday, April 18th

Join us for a day of learning, networking and practical takeaways for homeowners and industry professionals alike. The speaker series will run twice, once in the morning and once in the afternoon.

Located in the Hotel 21 conference room.

Morning Session

From Legislature to Local Action: Protecting
Groundwater

9:00 AM-10:00AM

Scott Schaneman Manager, North Platte NRD

Health and Your Drinking Water

10:00AM-11:00AM

*Crystal Powers Water Extension Educator, UNL
Water Center*

Practical Turfgrass Management

11:00AM-12:00PM

Elizabeth Exstrom UNL Extension Educator

Afternoon Session

From Legislature to Local Action: Protecting
Groundwater

1:00 PM-2:00PM

Scott Schaneman Manager, North Platte NRD

Health and Your Drinking Water

2:00PM-3:00PM

*Crystal Powers Water Extension Educator, UNL
Water Center*

Practical Turfgrass Management

3:00PM-4:00PM

Elizabeth Exstrom UNL Extension Educator



100547 Airport Road
P.O. Box 280
Scottsbluff, NE 69363-0280
(308) 632-2749
www.npnrd.org

Chemigation Permits

The North Platte NRD will be mailing out the annual Chemigation Permits beginning March 16th. These permits must be signed, dated, and returned to our office with the correct payment amount no later than June 1, 2026. Even if you are no longer chemigating, you need to fill out the permit with last year's chemicals and return the document to our office. Inspections will start after June 1st.

2026 Ag Symposium Overview

The North Platte Natural Resources District held its annual Ag Symposium on February 10 at the Gering Civic Center, bringing together producers and local partners for updates on agronomy, resource management, and District programs. Speakers included Tyler Kroupa, Robb Dedman, and Dr. Jesse Bell, along with NRD staff who shared information on water management, conservation efforts, nitrates, and Wellhead Protection Areas.

During the event, the District presented the Outstanding Conservation Award to Tom Case. Tom recently retired as the Utility Supervisor and Emergency Manager for the City of Minatare, where he spent decades supporting conservation projects, improving local infrastructure, and helping plant and maintain hundreds of trees. His long-standing commitment to stewardship and community service has made a lasting impact on the region.

Presentation recordings are posted on the District's website.



Todd Filipi (left), Resource Conservation Coordinator; Roger Eirich (middle), NPNRD Board Chairman; Tom Case (right), Conservation Award Winner



Tree Orders Now Open for 2026 Planting Season

Tree orders for the 2026 planting season are now being accepted. Seedlings are sold in bundles of ten on a first-come, first-served basis, with a variety of species available, including evergreens, broadleaf trees, and shrubs.

Two planting options are offered:

- Bare-root seedlings at \$1.20 per tree
- Plugs at \$2.20 per tree

This is a great opportunity to plan windbreaks, wildlife habitat, or general property enhancements. A full list of available species is posted at www.npnrd.org.

Department of Water, Energy, and Environment Water Users Survey

The purpose of this survey is to collect information about water quality and quantity uses and concerns among producers in the North Platte NRD. Please scan the QR and complete the survey.



Managing Through Drought: Protecting Groundwater in the North Platte NRD

As agricultural producers, we once again face a new crop year with a potentially allocated supply of surface water. In a normal year, the North Platte Project will see inflows of surface water up to 1.1-million-acre feet. In years where that supply is reduced due to drought conditions, it can have a major impact on the ground water wells in the North Platte NRD.

The persistent drought of the early 2000's provided this District a massive amount of data collected from our monitoring well network showing the effects of long-term drought conditions on our ground water aquifer. What that data had shown was that in years of shortened irrigation deliveries, surface water had a significant impact on ground water recharge.

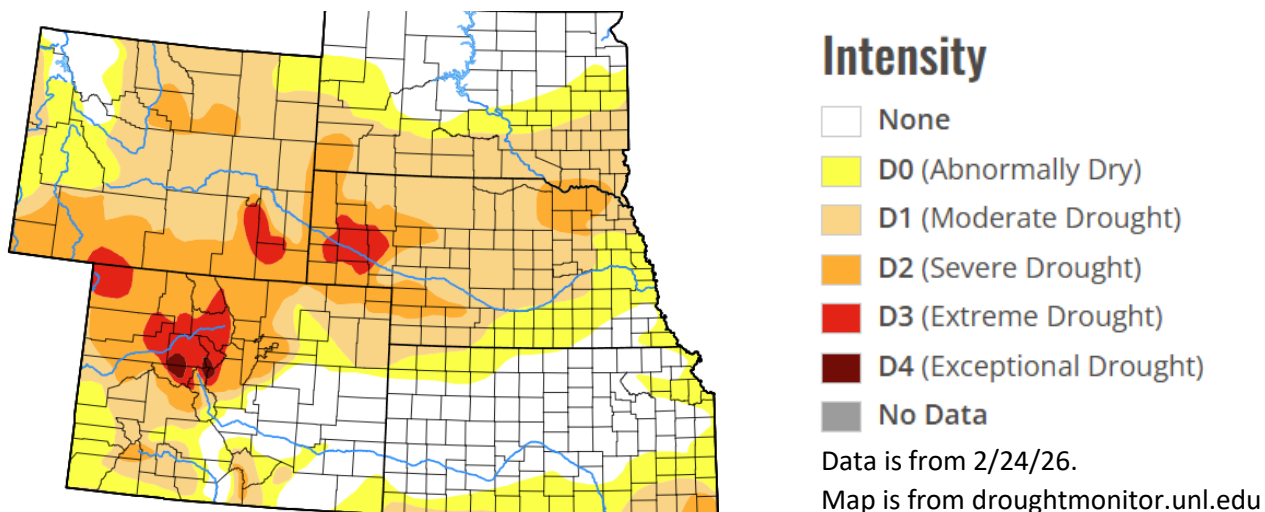
This District is heavily reliant on the surface water irrigation system that braids the North Platte River Valley. That system provides much of the necessary ground water recharge we need on an annual basis. When that system is strained due to drought, we begin to see ground water declines that negatively impact domestic, livestock, and irrigation wells. Our system is unique; the alluvial aquifer is a shallow aquifer that is easy to deplete in drought conditions, but in turn is easy to replenish when drought conditions reverse.

If you are a ground water irrigator, an industrial ground water user, or an owner of a domestic ground water well, how you manage the resource in persistent drought conditions will determine the long-term health of the aquifer. If there are ways to conserve ground water supplies in times of drought, we should embrace those opportunities.

Ground water laws in Nebraska are quite clear. In Nebraska, correlative groundwater rights are governed by the Nebraska Ground Water Management and Protection Act. This act allows landowners to drill wells and extract groundwater from an underlying aquifer for beneficial purposes, subject to management by the public. The act ensures that every landowner is entitled to reasonable and beneficial use of the groundwater underlying their land, provided the ground water supply is sufficient to meet the reasonable needs of all users. The act also requires local Natural Resource Districts to regulate activities that may contribute to groundwater depletion.

To boil it down, it means we all share in times when the supply is plentiful and when the supply is short. This District has taken proactive steps several decades ago in implementing an Integrated Management Plan that outlined in the long term how this District will manage water resources in both times of plenty and in times of shortages.

This District has had ground water allocations in place since 2003 in the Pumpkin Creek Watershed, and in 2009 implemented allocations in the North Platte River Valley. Those allocations are still in place and have been an effective way to manage groundwater supplies. Currently, our ground water levels are not showing massive amounts of decline, but with drought conditions continuing, and snowpack levels in the North Platte Basin less than optimal, we need to be cognizant of what that means to our aquifer, and take the necessary steps to do all we can to keep the water flowing out of all of our taps.



Nitrogen Movement in Soil

Nitrogen in the soil continually shifts between organic nitrogen, ammonium, and nitrate, and the way it behaves is closely tied to soil characteristics. Organic matter breaks down through mineralization to release ammonium, and nitrification then converts that ammonium into nitrate. Warmer temperatures, adequate aeration, and active microbial populations speed up these processes, while cool, compacted, or poorly drained soils slow them down. Because nitrate moves easily with water, it is the form most likely to leave the root zone. Soil texture plays a major role as well: sandy soils allow nitrate to move quickly, while finer-textured soils slow movement but are more prone to saturation.

Nitrogen losses occur when soil conditions favor leaching, volatilization, or denitrification. Leaching is most common in coarse-textured soils or under heavy irrigation, where water moves rapidly downward. Volatilization is more likely on high-pH soils or when urea-based fertilizers remain on the surface without incorporation. Denitrification becomes a concern in saturated or poorly drained soils, where limited oxygen causes nitrate to convert into nitrogen gases. Each of these pathways reduces the nitrogen available for crop uptake and can limit yield potential.

Nutrient management relies on understanding how soil properties influence nitrogen availability. Matching application timing with crop demand, selecting nitrogen sources that fit the soil type, and managing irrigation to avoid excess water movement all help keep nitrogen in the root zone. By paying attention to soil texture, drainage, organic matter levels, and moisture conditions, irrigators can make informed decisions that protect their nitrogen investment and support stronger crop performance.

Nitrogen Loss Pathways

Leaching

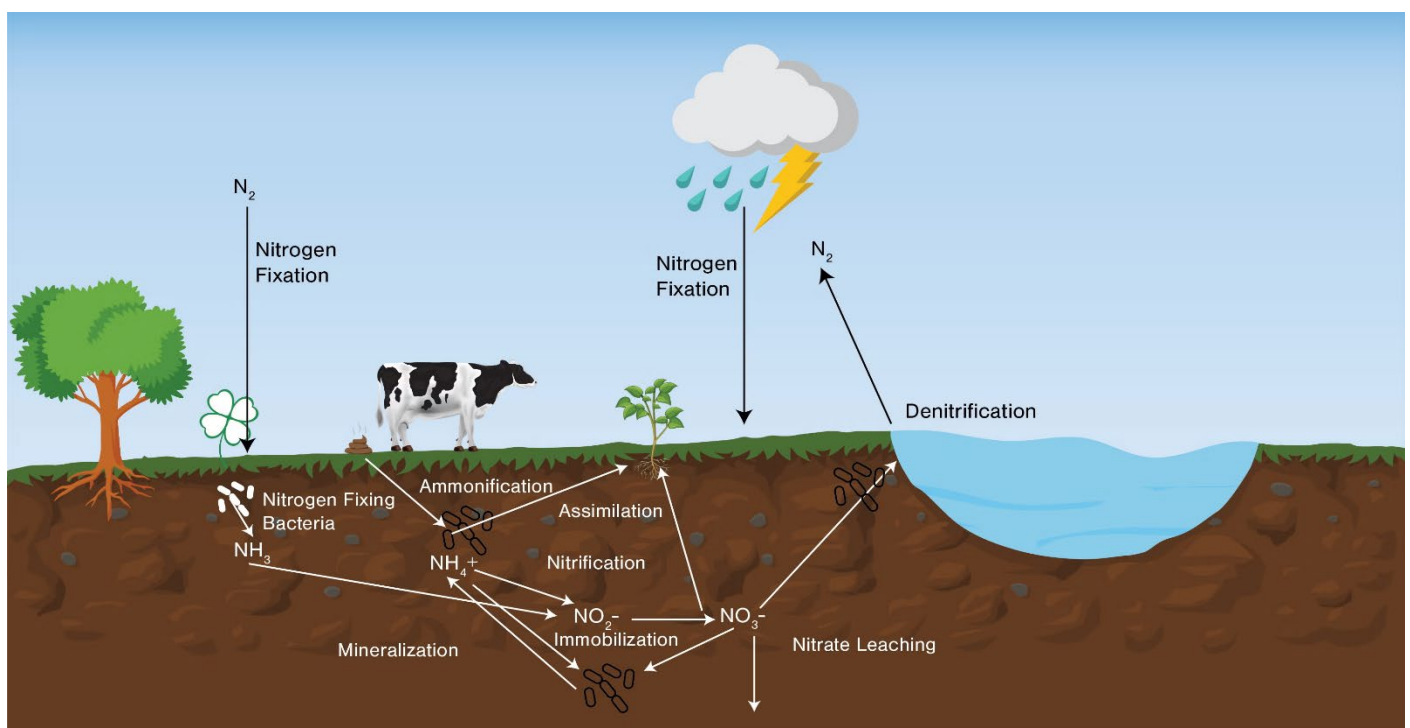
Nitrate dissolves easily in water, so when rainfall or irrigation exceeds what the soil can hold, especially in sandy soils, it moves below the root zone and is lost to crops.

Volatilization

Surface-applied urea or manure can lose nitrogen as ammonia gas, especially in warm, windy, high-pH conditions when the fertilizer is not incorporated by rain or irrigation.

Denitrification

In saturated or poorly drained soils with low oxygen, microbes convert nitrate into nitrogen gas that escapes into the air, a process common in fine-textured or low-lying wet areas.





100547 Airport Road, P.O. Box 280
Scottsbluff, NE 69363-0280

PRESORTED STANDARD
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NORTH PLATTE NRD
PERMIT NO 280

HENDERSON SALES CORPORATION

**1161 HENDERSON RD
ALLIANCE, NE 69301**

Board Meetings

The public is welcome to attend all Board meetings and the Committee meetings. The North Platte Natural Resources District conducts its Board Meetings on the second Thursday of each month at 3 pm. Committee meetings are held as needed. The meetings are held at the office located at 100547 Airport Road, Scottsbluff. We welcome your thoughts and opinions on upcoming projects

Water Use Reports

The North Platte NRD has finished processing the 2025 ground water use reports. These reports show the previous year's water usage and outline water availability for the new Allocation, which started October 1, 2024, and ends September 30, 2029. All reports have been mailed out. If you still have not received your ground water use report, please contact the North Platte NRD.

This is part ten of an ongoing series designed to provide education and information to the Landowners and Operators irrigating within the North Platte Natural Resources District boundaries.

Information found in this Newsletter has been reproduced from "Irrigation and Nitrogen Management, User Education/Certification Program" a Nebraska Extension Circular EC2008. If you would like more information, please contact the North Platte Natural Resources District.