

MINUTES

LOWER LOUP NATURAL RESOURCES DISTRICT BOARD OF DIRECTORS MEETING

February 26, 2026

Ord, Nebraska

The February meeting of the Board of Directors of the Lower Loup Natural Resources District was held at the Headquarters Office, 2620 Airport Drive, Ord, Nebraska, on February 26, 2026. Chairman Thoene called the meeting to order at 4:00 p.m.

CALL TO ORDER

Directors in attendance:

Rollie D. Amsberry, Treasurer
Robert L. Bauer
Jeremy Eschliman
Justin W. King
Gary A. Kruse
Alan Petersen
John Shadle
Alexander L. Vlach

Timothy E. Bartak
Colton R. DeBower
Randy Kauk
Thomas L. Knutson
Larry Mohrman, Secretary
Chad J. Podolak
Henry J. Thoene, Chairman
Rick Vlach, Vice Chairman

Directors absent:

James Eschliman
Gerald Smith

Todd Nitsch

Staff in attendance:

Russell G. Callan, General Manager
Irene Kreifels, Administrative Assistant
Alan Bartels, I & E Coordinator
Dell Harris, Water Resources Specialist
Kevin Gustafson, District Engineer
Ann Freeman, Water Programs Secretary
Ken Sheets, Field Data Liaison
LeeAnn Smith, Water Admin. Assistant
Dan Ruterborries, Rangeland Resources Tech.

Tylr Naprstek, Assistant General Manager
Kim A. Lyons, Financial Secretary
Brant Bechtold, I & E Specialist
Makenzi Woollen, Financial Assistant
Jason Moudry, Water Programs Specialist
Aron Lewis, District Conservation Forester
Derek Vogt, Agronomist
Brian Kolar, Projects Technician
Neal Fulton, Agronomist

Guests in attendance:

Don Blankenau, Woods Aitken LLP, Lincoln
Randy McCain, Bartlett
Caleb Paul, Bartlett
Zach Wright, Ericson

Bryce Bauer, NRCS, DC West
Clifford Sterner, Merna
Scott Plugge, Bartlett

VERIFICATION OF MEETING NOTICE AND ADOPTION OF AGENDA

Chairman Thoene asked for verification of the meeting notice. General Manager Russ Callan stated that the agenda was current, and that the meeting notices were properly published in all newspapers, posted at the NRD Headquarters office in Ord, on the NRD website, and in the eight field office locations.

EXCUSED ABSENCES

Thoene stated that Directors James Eschliman, Nitsch, and Smith had asked to be excused.

Kruse motioned, seconded by Petersen, to excuse absent directors James Eschliman, Nitsch, and Smith. Motion carried by electronic vote. Directors voting yes: Amsberry, Bartak, Bauer, DeBower, Jeremy Eschliman, Kauk, King, Knutson, Kruse, Mohrman, Petersen, Podolak, Shadle, Thoene, A. Vlach, R. Vlach. Directors absent: James Eschliman, Nitsch, Smith.

MINUTES

Thoene asked for corrections and/or additions to the January 22, 2026, Board meeting minutes. R. Vlach stated that he was present at the Committee meetings. Thoene announced that the minutes will stand approved with the noted correction.

TREASURER'S REPORT

Russell Callan, General Manager, highlighted expenditures of \$25,500.60 to A.M. Leonard Company, for coconut mats for resale. He also highlighted additional expenditures of \$18,876.09 to SJ Well Service, LLC for the well at Davis Creek; \$50,070.53 to Quattrocchi Construction LLC; \$12,388.04 to HDR Engineering Inc. for work on the large water user rule; and \$12,011.87 to Seim Ag Technology, LLC for flow meter maintenance.

Jeremy Eschliman asked if there was a cap on flow meter cost-share and Callan stated that there is a limit of \$2,000.00 per meter and the NRD has \$500,000.00 million budgeted for cost-share.

Bartak motioned, seconded by R. Vlach, to approve the February 26, 2026, Treasurer's Report. Motion carried by electronic vote. Directors voting yes: Amsberry, Bartak, Bauer, DeBower, Jeremy Eschliman, Kauk, King, Knutson, Kruse, Mohrman,

Petersen, Podolak, Shadle, Thoene, A. Vlach, R. Vlach. Directors absent: James Eschliman, Nitsch, Smith.

The Treasurer's Report Approval Policy states that the approved expenditures are to be published and each director who has per diem and/or reimbursement of expenses included in such financial reports abstains from voting for the approval of his or her own per diem and/or expense reimbursement.

ORDER TO DESIGNATE PHASE 2 AREA IN WHEELER COUNTY

Thoene stated that because of concerns about testing, etc., staff would do a short presentation on water collection procedures and test results. Slides from the presentation are attached immediately following regular meeting minutes.

Callan explained sampling protocols and result variability, as well as the process the NRD follows when sampling. He stated that there were questions as to why there is so much variability in results from year to year. He added that he reached out to Sue Lackey, Research Hydrogeologist, UNL, and Chris Hobza, Lead Hydrologist, USGS, for their input as well.

Callan reviewed the different types of licensing held by staff, adding that all staff conducting testing has undergone well driller training and holds licenses with the Nebraska Department of Water, Energy, and Environment. He stated that the NRD has 14 licensed staff members with the following licenses: 1 Pump Installer Water Well Contractor, 1 Water Well Contractor, 1 Monitoring Well Installer, 10 Water Well Technicians, and 1 Municipality Water Operator. He added that in addition to initial training, staff is required to attend continuing education classes to maintain licensing. Callan added that the NRD operates a public water supply at Davis Creek which requires LLNRD to follow all sampling guidelines. LLNRD staff is educated in criteria associated with water sampling, well drilling, monitoring wells, chemigation, and has the background to know how to obtain samples.

Callan briefly reviewed the Water Quality Assurance Plan and added that it is available for viewing. He highlighted the section that specifically addresses the water sampling process and procedures and explained the chain of custody form and other documentation that is filled out for all samples.

Callan discussed nitrate result variability and showed a diagram of what happens to underground water, discussing variables including timing, flow patterns, clay layers, etc. Callan showed slides from Chris Hobza's work with Wheeler County samples and showed a map of Wheeler County from 2003. He explained that the samples rely on a combination of short, screened monitoring wells and longer screened irrigation wells, adding that nitrates stick to water so shallow groundwater likely has higher nitrate concentrations than deeper groundwater, especially near the base of the aquifer which has little or no nitrates. Callan added that within Wheeler County, groundwater is pumped from the High Plains or Ogallala aquifers explaining that there are a number of high permeable sand and gravel layers between less permeable layers of clay, resulting in higher concentrations.

Callan discussed the layers and the well construction process. He stated that the well shaft and screens are generally encased in a gravel pack that can mix into the water. He explained that when pumping starts there is a cone of depression that affects the water table and increases over time. He added that it would be hard to pinpoint and sample during exact conditions every time due to numerous factors, including but not limited to, pumping time, down time, and pumping volume. Callan showed the difference between monitoring well, sampling well and water well depths and explained that water levels were checked early on, but water was not sampled for nitrates until several years later.

Callan reviewed some of the results and elaborated that monitoring screens may only be 10 feet deep while irrigation wells may reach 100 feet. He added that higher concentrations in wetter years may be caused by increased permeability. He also stated that nitrate concentrations can decrease if the pump runs longer because it will get water from the bottom once the top depletes.

Callan also discussed denitrification which is a process where bacteria can denitrify nitrogen in the well, so if a well has been sitting for a long time, the nitrogen levels might be low because of denitrification. In summary, the District, because of all the potential variables, tries to use the median number, which drops out the highs and lows, instead of the average number for precision and explained that samples must be high for four consecutive years to trigger.

Thoene asked that all comments from the public be held until after the vote and asked for comments from the Board members that were able to attend the Public Hearing held February 17th in Bartlett and questions from those who were not in attendance.

Callan added that the Public Hearing transcript as well as DNR's letter of support were supplied at each seat.

Kauk stated that Callan did a great job and at the meeting there were a lot of questions about variables, adding that he had questioned the same things; however, has a better understanding after the explanation and hopes that the public can understand it also.

Kruse commented that he respects people who mention their issues and is glad to have it in the public record, adding that he also feels the explanation helped him to understand as well.

Mohrman stated that this is not restriction or regulation, just information collection, adding that if there were not meters, we would not know anything for sure. He added that he thinks its better to be proactive instead of reactive, adding that this is not a knee jerk decision and that there are 4 years of data to back up the decision. He also stated at this time the Phase 2 area just covers the area of concern instead of a blanket regulation, but it may need to be expanded later, if necessary.

Podolak added that there is a little shy of half of the area in Wheeler County that has readings that are trending higher. He stated he likes the local control option to manage instead of Federal mandates.

Mohrman motioned, seconded by Shadle, to approve Order No. 2026-01.

Callan read the order as follows:

ORDER OF DESIGNATION No. 2026-01

WHEREAS, the Lower Loup Natural Resources District has adopted proposed Rules and Regulations for the implementation of the Lower Loup Natural Resources District's Groundwater Management Area Phase II designation; and

WHEREAS, a Public Hearing was held on February 17, 2026, in accordance with NEB. REV. STAT. § 46-743 to receive public comment regarding the implementation of the proposed Groundwater Management Area Phase designation; and

WHEREAS, the District has existing Groundwater Management Area Rules and Regulations to ensure conformity with Nebraska law and internal consistency; and

WHEREAS, Since 1977 the Lower Loup Natural Resources District has collected groundwater samples from wells located in Wheeler County, Nebraska, in accordance with the methodology accepted by the field of water quality science. These groundwater samples were tested for the presence of nitrates and other chemicals. The testing of the groundwater samples documented, median nitrate levels above 6.5 parts per million in groundwater over four consecutive years in Township 23 North, Range 12 West, and Township 22 North, Range 12 West, Township 22 North, Range 11 West, Township 22 North, Range 10 West, and Township 22 North, Range 09 West of the 6th P.M., Wheeler County, Nebraska; and

WHEREAS, the Nebraska Department of Water, Energy, and Environment, after review of the proposed Groundwater Management Area Phase designation offered its letter of support and approval of said designation; and

WHEREAS, the District has determined that for the health, safety, welfare, and best interests of the residents of the District, the proposed Groundwater Management Area Phase II designation should be approved; and

WHEREAS, the implementation of District's Rules and Regulations regarding a water quality sub-area designation, water quality control phases with nitrate-nitrogen level parameters and the use of flow meters in designated areas has prepared the District to proactively provide groundwater quality;

NOW, BE IT RESOLVED, that the Board of Directors of the Lower Loup Natural Resources District designate the creation of a Groundwater Management Area PHASE II in the Groundwater Quality Management Sub-Area, Township 23 Range 12 West and Township 22 North and Ranges 9, 10, 11, and 12 West of the 6th P.M., Wheeler County Nebraska, and adopt its Rules and Regulations to be utilized within the boundaries as described in such Rules and Regulations, and will include all irrigation water and aquifers lying below such land surface as described.

AND, THEREFORE, BE IT FURTHER RESOLVED that this Order take effect November 01, 2026.

Petersen stated that he had not attended the hearing and, because of that, he was intending on abstaining; however, he has confidence in the decision. Thoene added that he is abstaining, also, because he sells flow meters and irrigation equipment.

Kauk stated that he farms with groundwater and surface water and that he would appreciate it if he were notified that he has elevated nitrate levels, adding that he hopes the public realizes this is a step to protect future generations.

Jeremy Eschliman stated that he is originally from the Wheeler County area and that nitrates were practically nothing when he was growing up. He said that, currently, there are increased nitrates and people are having to install reverse osmosis systems. He added that he has great faith in trusting staff integrity and other specialists that have been brought in as well.

Vote was held. Motion carried by electronic vote. Directors voting yes: Amsberry, Bartak, Bauer, DeBower, Jeremy Eschliman, Kauk, King, Knutson, Kruse, Mohrman, Petersen, Podolak, Shadle, A. Vlach, R. Vlach. Director abstaining: Thoene. Directors absent: James Eschliman, Nitsch, Smith.

PUBLIC COMMENTS

Thoene asked for public comments.

Randy McCain, Bartlett, addressed the Board and stated that he farms near Bartlett. He stated that it is detrimental to have to do flow meters now with the economy what it is, and it would cost a lot if a producer had several pivots. He asked why the NRD is doing this now.

Caleb Paul, Bartlett, addressed the Board and stated that he farms with Randy McCain. He stated that he is concerned about nitrate levels and acknowledged that there is a lot of information on high nitrate levels causing cancers, etc., and added that he doesn't think anyone would argue with wanting their drinking water safe. However, he wonders how flow meters are going to bring nitrate levels down and how it is even possible to put a flow meter on and have a change in levels, adding that if it changes so much from year to year, flow meters aren't going to change the levels.

Callan responded that the timing has to do with 4 consecutive years of nitrates in the area being over 6.5 ppm, adding that it is not based on whether commodities are high or low or if the economy is high or low. He went over the timing of the process. He added that the Order will take effect November 1, 2026, so producers have 3 years to put a meter on. He also stated that there are piles of data relating to the amount of nitrate and infiltration of water being the two biggest contributors of water nitrate problems. Callan stated that Mother Nature will move water, but over-application of irrigation water is the next highest reason for movement and flow meters will help us to calculate how much nitrates have moved based on gallons pumped.

Randy McCain asked if it is known where the nitrates are coming from. Callan stated that now it is mostly ag applied nitrogen, either manure or commercial fertilizers from irrigated row crops. He added that there are some lagoon issues as well.

McCain stated that a lagoon near him had to be drained because it was leaking and has been fixed and asked if that would cause higher levels. Also, he asked how the NRD knows pivots, and not other issues going on in the area, and what the difference is from now and 20 years ago, adding that he does not apply any more nitrogen than he did back then.

Toene stated that it is difficult to manage what you cannot measure.

Toene thanked all guests for attending, adding that they were welcome to stay for the remainder of the meeting.

FORESTER'S REPORT

Aron Lewis, District Conservation Forester, reported that he attended the Nebraska Forest Service annual meeting the last week of January. He added that he has been working on windbreak renovations and wildland urban interface projects.

Lewis reported that, as of earlier in the day, 32,311 trees and 6,256 coco mats have been sold.

Lewis stated that he has been helping with NRCS Forestry Improvement projects, adding that the grant funds ran out so the projects are going through EQIP.

Lewis also reported that he attended the Groundwater Management meeting on Tuesday, representing the Forest Service and fire department.

Lewis stated that he will be in North Platte April 18-19 for his annual fire training and a fitness test.

Mohrman asked how many trees he is predicting to sell and Lewis stated that last year we sold over 60,000 trees, so he is hoping to get there this year, adding that the dry season is not helping with sales so far.

NRCS REPORT

Bryce Bauer, NRCS, DC West, reported that staff is working on EQIP applications and funding will start the week of March 9th. He added that the administration is still writing the rules and are still learning what they are.

Bauer also reported that the Inflation Reduction Act money for climate smart practices got swept and the RCPP project was with that, adding that he thinks the money was put into regenerative ag practices as they will receive about \$44 million in EQIP for this year, but usually receiving about \$24 million. He stated that the Lower Loup NRD area is about 10% of the state,

so should receive \$4-5 million. He stated that there are currently 300 applications in the West and 72 in the East, adding that there are usually close to 400 in the Lower Loup every year. He stated that there have been a lot of cancellations in the past when costs are down, but cost-share is a little higher than 50% this year so they should have a good grasp on new contracts by next month.

Bauer stated that they have received a lot of interest in seeding dry cropland back to grass. They are running them through EQIP and some have gone through NSWCP for immediate seeding. Bauer added that the Buffer Strip program has had good interest as well, a state program funded by pesticide registrations. He added that the Buffer irrigated flat rate is \$225/acre on streams and there is about \$20,000 left statewide.

Bauer reported that Sherry Asche's last day as RC in Spalding is tomorrow, stating she had been in Albion for about 25 years and the last 4-5 years in Spalding. In Asche's absence, Ellie Norlen, the Soil Conservationist in Spalding, will take over the day-to-day office functions with Brooks Bechtold. Bauer will go over about once a week to help out.

Bauer stated that in the East, Miles Anderson reports that continuous CRP crop enrollment opened February 12th. The Continuous CRP program includes work on filter strips, windbreaks, grass waterways, and wetland buffers. The general CRP programs includes whole farm operations, etc.

INFORMATION & EDUCATION REPORT

2026 Directors Retreat

Alan Bartels, I&E Coordinator, reported that the Director's Retreat will be held March 10th at Headquarters at 9 a.m. and that lunch and supper will be provided.

Adventure Camp about the Environment

Bartels reported that ACE Camp will be held June 21-24 and that planning is underway with most of the schedule set. He added that Lower Loup will host a water quality session; NRCS will do soil and range; Papio NRD will do wildlife; DWEE will do hydrology; the Forest Service will do forestry; Lower Platte South NRD and NARD will host sessions on fishing; Lower Platte South and Papio NRDs will do archery; UNL will do solar cars and careers; Plant Nebraska will do edible plant walks; and Lower Niobrara NRD will do water rockets.

Bartels stated that \$3,500 in funds were requested from the NARD Foundation for camp. He stated that attendance is capped at 30 and he is trying to reach the goal of each NRD having at least one camper attend this year.

Arbor Day Programs

Bartels reported that the NRD will be giving out about 400 trees during Arbor Day Elementary school programs and he is setting up an Arbor Day event in Columbus at the Children's Museum.

King asked what ages can attend camp and Bartels replied it is for kids going into 7th and 8th grades.

ASSISTANT GENERAL MANAGER'S REPORT

Flow Meter Cost-share – Quantity Areas 18 & 20

Tyler Naprstek, Assistant General Manager, reported that flow meter applications are still coming in, adding that in Area 18, north of Kearney, there are 480 total applications with 346 completed. He added that in Area 20, south of Loup Power Canal, 163 applications have been completed out of 259 total. He also added that in Area 18, there are about 62 who have received certified letters that have not signed up for cost-share or attempted to put a meter on, and those will be in violation of the rules and regulations if they are not in operation by March, 2026. He stated Area 28 is already metered and Area 20 has 13 fields that have not complied. Naprstek added that we are honoring the cost-share because they may be waiting on the flow meters, stating that the main thing is if the meter is present. Naprstek stated that Area 19 is further behind, but stated they have until Spring, 2027 to get meters put on.

Naprstek commended staff for their work, adding that Jane Klanecky, Receptionist, Dell Harris, Water Resources Specialist; and LeeAnn Smith, Water Programs Assistant, have been working on updating certified acres and the NRD technicians are going through wells. He added that there are 11,000 wells in the LLNRD; however, some are inactive wells that either need to be checked and capped, listed as inactive, switched to livestock, or decommissioned.

Rick Vlach asked how they go about switching to livestock wells. Naprstek replied that they need to have a water-tight seal and be re-registered. Jeremy Eschliman asked if PVC is code for above-grade casing. Callan stated there are rules, but it is acceptable.

Naprstek added that a lot of the producers do not realize the sites are a mess until they go to put a flowmeter on; there are issues being found that are not up to code from when they were drilled 50-60 years ago.

Flow Meter Maintenance

Naprstek reported that Seim Ag completed the flow meter maintenance in Area 28 with 148 meters serviced. He explained that they check the propeller, replace the gaskets, and grease them. He added that there were 7-8 that were billed out this year for costs above the standard basic maintenance, with one having a busted register that costs \$400-\$500 to replace.

Chemigation Training

Naprstek reported that staff attended the local chemigation training and the person teaching in Valley, Howard, and Greeley Counties shadowed with Jordyn Duffek, NRD Technician in Spalding, so she could see what the process looks like in the field.

Drought Monitoring

Naprstek reported that a new drought map was released today showing “Moderate” drought and “Watch” statuses. He added that spring static water level readings will show more information, adding that last year, June and July were wet and then things got dry.

Naprstek reported that all areas are in “Watch” status and we have not received any calls for domestics going dry. He also showed the regional and statewide outlook, adding that Box Butte County is in red. Naprstek also showed the long-term outlook and surface water levels.

ITEM XII. WATER RESOURCES COMMITTEE

Lower Platte River Basin Coalition- 2025 Annual Report

Naprstek presented the Lower Platte River Basin Coalition report. He went over the irrigated acres information stating that the data is used for expansions, rotations, new acres, etc. He reviewed the groundwater and surface water levels over the years dating back to 2018 and continued to review commingled acres, municipal pumping data, and a breakdown of permits and transfers. Naprstek stated the deadline for transfers is March 1st.

Naprstek also discussed water banking, explaining that when producers are moving from high to low, they get to keep acres. However, if moving from low to high, there is a stream depletion factor that is considered. He added that the NRD banks the difference for use later for additional users or large users.

Naprstek continued to discuss variance options, well agreements, surface rights, acre rotations, and explained that the conversion gets us acre-feet back from development. He also showed a map of irrigated flow sites and touched on depletion accounting.

It was also reported that every 5 years the plan rolls over and is reevaluated and, after approval, will be published on the website and presented in Kearney to the Lower Platte River Basin Coalition. Naprstek added that he is chairman of the Tech group and Callan is chairman of the Managers group.

Jeremy Eschliman motioned, seconded by R. Vlach, to approve the 2025 Lower Platte River Basin Report. Motion carried by electronic vote, all present voting yes.

The approved Lower Platte River Basin Coalition report can be found on the LLNRD website.

Water Quality Report - Data

Water Quality Report - Data was reviewed. Derek Vogt, Agronomist, showed the whole District and all samples taken, stating that Area 19 is on high alert and has triggered 3 of the last 4 years.

Areas of concern were discussed and a breakdown of the management areas was shown with and without the individual areas included. Historical trends were also discussed.

Jeremy Eschliman stated it is alarming to see so many areas in red in the District.

Mohrman asked about charts for Platte County and why they show 10.6 ppm at monitoring wells and there are other wells higher. Naprstek replied that Callan's explanation earlier regarding different depths and conditions was valid in this instance as well, adding that the monitoring wells placement and lack of aquifer in the areas could also be factors.

Knutson motioned, seconded by King, to approve the Water Quality Report. Motion carried by electronic vote, all present voting yes.

The approved 2025 Water Quality Report can be viewed on the LLNRD website.

NIRIA 2025- Applications and Report

The Nitrogen Reduction Incentive Act was discussed. It was announced that 69 applications were received in 2025 and 19 did not fulfill the obligations and dropped out. Going forward, there are approximately 50 applications for 2026.

Callan added that DWEE and the NRD managers are working with the corn board and corn growers to put together Nitrogen Use Efficiency (NUE) cost-share, stating that if it can be shown that their total NUE is below 1, there will be a \$15/acre incentive just for signing up. This is a good program in that it rewards the people who are already doing a good job.

Irrigation Violations

Naprstek reported that, after reviewing the infrareds, there were 347 pings for potential violations, which was narrowed down to 7 after looking at the history of transfers and acre rotations, adding that fields do not trigger if they are less than an acre over. He added that certified letters will be going out to violators next week.

City of Fullerton- Well Decommissioning Project

Naprstek reported that the City of Fullerton received a source water grant to decommission 20 wells. They have located and are in the process of decommissioning 3 wells right now. It was added that they have identified 2 test hole sites that will work for a municipal well system going forward. He stated that they are plugging unused wells in town within the well protection area.

Vadose Sampling Update

It was reported that Jason Moudry, Water Programs Specialist, has presented to the stakeholders' group and several others on the vadose nitrate movement. There has been a lot of

coordination with Upper Big Blue and Central Platte NRDs for a joint project partially funded by a Water Sustainability Fund grant.

PROGRAMS/PROJECTS COMMITTEE

Fullerton Dam Removal

Kruse stated that Kevin Gustafson, District Engineer, will give an update later.

NRD Habitat Area DRAFT Rules

Kruse reported that revisions are being made to the NRD habitat area rules and there is a copy on the iPad for review, adding that the Committee plans to act on the changes next month. He added that most of the changes are revisions regarding hunting, regulations, and some of the LLNRD rules on recreation areas, stating that, as of now, patrons cannot be on NRD property with firearms.

Columbus 2025 Operation Report

Brian Kolar, Projects Technician, briefly reviewed the numbers for operations on the Columbus Project for this year vs. last year. He stated that pumping days were down due to the high rainfall in June and July last year. He went over the electrical fees and other costs associated with the service including surface water service, channel vegetation control, and water level telemetry. Recharge estimates were also reviewed for the channel and efficiency was shown based on the original modeled figures. Annual maintenance actions were also reviewed, including herbicide, mowing, and ripping channel bottom to promote recharge.

Kolar showed a monitoring well graph depicting water levels throughout the operating season, adding that some are viewable by the public through the NRD website. A map of the project overview was also shown highlighting where the project pipelines, channels, etc., run.

Bauer stated that even though we had to pump less because of rainwater, we are still getting recharge, and it would be nice to be able to get an estimate of that number. Kolar explained how the current recharge numbers were figured.

Bauer asked if the City operates the project. Callan stated that Kolar controls it with his phone; however, our system will need an upgrade because soon our system will no longer be supported. LLNRD has never gotten permission or spent the money to put in a flow monitoring system, or an indication system, to say that water was going under the river road..

Kruse asked if we will always control it. Callan stated that when level operators are down, they may take over, but as of now, Kolar will remain in control of it with Brandon Esch, Water Quality Technician in Columbus, acting as backup.

Kruse motioned, seconded by Podolak, to approve the Columbus 2025 Operation Report. Motion carried by electronic vote, all present voting yes.

Monroe Area Recharge Project

Kruse reported that the Monroe Area Recharge Project was discussed and staff is looking at places where we could recharge along the Loup Canal System northwest of Columbus and northeast of Monroe. He added that some original areas have been removed from consideration due to being close to the river, so there wouldn't be a lot of recharge benefit, or there could be excessive costs to get water to those points.

We are currently looking at some new areas, using modeling scenarios. Some of the things to potentially be a part of this project going forward are the potential of putting in structures along the drainage streams to try to hold surface water back to augment, as well as to bring up the general groundwater levels in the area, as well as to improve habitat. Once modeling scenarios are complete, plans are to meet with Corey Hobza and Chris Shank of Loup Power District.

Sargent Flood Project

It was reported that staff is working on negotiations with landowners involved in the project to get agreements signed.

Hazard Mitigation Plan Cost-Share Revision

Kruse reported that Bartels is working on the plan, which is redone every 5 years, and the cost will be approximately double what it has been in the past. In October, 2025, the Board committed to spending \$49,621.25 in local cost-share funding. Bartels reported that due to the loss of BRIC grant funding, NEMA cannot supply 75%, so it would be changing to a 50/50 match, bringing LLNRD cost to \$99,242.50, less Grant Management reimbursement of \$9,924.25, which doesn't require a match, to a final LLNRD cost of \$89,318.25.

Kruse motioned, seconded by Petersen, to approve the Hazard Mitigation Plan cost increase to \$89,318.25. Motion carried by electronic vote, all present voting yes.

ENGINEER'S REPORT

Fullerton Dam Removal Project

Gustafson reported that EA Engineering had been selected at the January meeting to provide services from the six proposals received. He added that the proposed cost was \$246,000 for design and \$65,000 for engineering services for construction, stating that we would want to get into a contract with EA for design and will go from there.

Gustafson met with Fullerton's mayor and the city clerk last month and let them know what selection was made and the mayor wanted time to review. He added that a 50/50 split for the \$246,000 design portion was discussed; however, they do not want the project to stop and are lacking funding. They have requested a lower cost-share amount for them, so they may come

back to see if they can get a lower amount. Gustafson added that there is no agreement with either the City of Fullerton or with EA as of now.

Jeremy Eschliman asked if the price or cash flow was the issue with Fullerton. Gustafson stated he thought it was overall cost, adding that their fiscal year starts in August, so they are hesitant without having anything in the budget. Amsberry mentioned that they are already spending a lot of money on a new water system.

Mohrman stated if they cannot afford the study, then they will not be able to afford construction. Kruse asked if there will be grant money available for construction. Callan replied that it is possible, but it is a small chance to get funding for this type of thing.

Sargent Flood Project

Gustafson stated that the project is moving forward.

Going back to the Fullerton project, Podolak asked if they were waiting on us for movement with the project. Callan stated he thinks that we allow them to go through their process and come back to us again for review.

Bauer asked what our maximum project participation percentage is. Callan stated if it is our project, we can do what we want. We can use the Participation Policy for an outline. It depends on if the project is ours or theirs.

VARIANCE COMMITTEE

Dell Harris reported that this was the second time hearing the Osentowski variance request. He added that they are requesting to give up acres in the Upper Elkhorn, maybe ten miles north of our boundary, and develop them in the LLNRD. He added that they want to give up Upper Elkhorn drainage; however, there is no benefit for us. It would be a total depletion for LLNRD if the variance was granted.

It was added that other alternatives were offered and they were not interested in the options presented.

**Kruse motioned, seconded by King, to deny the Osentowski variance request.
Motion carried by electronic vote, all present voting yes.**

Harris stated that this month was the first time hearing a request from Ronnie Reese north of Arcadia. He is requesting to be able to irrigate his whole pivot, maybe 168 acres, instead of the current allocation of 64 acres. Based off the NIR of 6.7 inches and getting recharge credit for dryland irrigation, he would have a little over four inches per acre he could spread, but he is already in a high-water level, so we are looking at possibly up to 7 inches for the irrigation requirement. It was added that this will allow him to put the entire allocation on his whole field if he wants to. Harris added that he will be back next month.

Mohrman asked if we are in a drought year, do they stop? Harris stated it would be seven inches for the whole field so it could be split, doing more in one spot and less in the rest if they do not go over acre-inches.

MANAGER'S REPORT

Water Strategies

No update.

Litigation

No update.

New Hires

Callan stated that Mike Lorenz's position will be posted shortly, as he is retiring at the end of March.

Non-action Reports

Callan reported that it is election filing time for incumbents. He stated that Alex Vlach and Skip Amsberry were not listed as incumbents; however, Amsberry's has been sent in, adding that we may have to fax a copy before the March 2nd deadline.

There is still time for non-incumbents to file.

Podolak asked how many open seats there currently are. Callan stated two – Jim Adams and Matt Lukasiewicz.

Callan reported on the Groundwater Management Plan stakeholders meeting held on Tuesday, adding that there was good attendance and discussion. Shadle stated that Olsson is facilitating and getting valuable feedback from producers. It was added that the next meeting will focus on quantity. Callan said that the group is helping with revisions to the Groundwater Management Plan. One topic that will be brought back to the next stakeholders meeting is whether to "incentivize" or "regulate".

NARD REPORT

Thoene reported that the NARD building that was purchased last year is almost paid off and insurance accounts are doing well.

Thoene stated the next NARD meeting will be held in Lincoln on March 9th.

Thoene also announced that there will be a Basin Tour in the South Platte and North Platte NRDs in June, but he has not seen any further information.

NRC REPORT

Shadle reported that there was \$8 million taken from the Nebraska Environmental Trust and put into the Water Sustainability Fund; however, there was question if it could be spent or if it had to go through the budgeting process. He added that last year there was about \$2 million allocated with around \$5.2 million that would still be available if they get the spending authority through. He added that the next Appropriations Committee meeting will be in few weeks.

It was also reported that the Soil and Water Conservation NC-16 windbreak funds passed, so certification is done by the forester, eliminating the requirement to go to the State Forester for approval.

Shadle reported the next meeting will be held April 29th.

ANNOUNCEMENTS / FUTURE MEETING TOPICS

It was announced that the Board Retreat will be held March 10th.

ADJOURNMENT

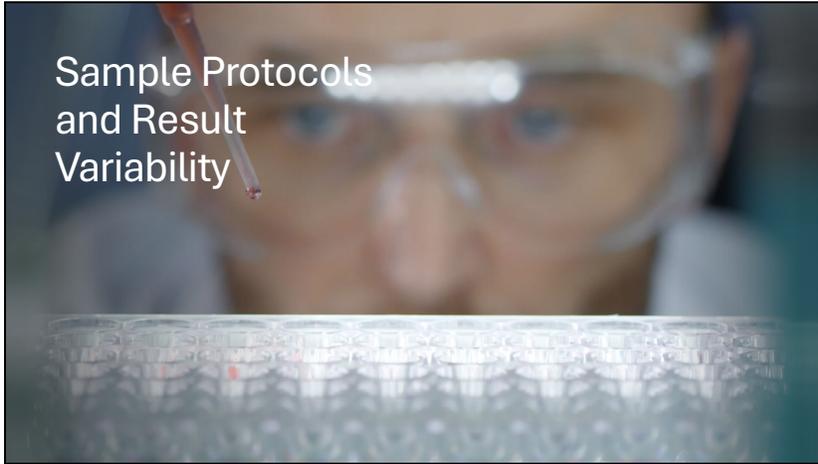
With no further business before the Board, Chairman Thoene declared the meeting adjourned at 6:26 p.m.

Roster for attendance of this meeting and tally of votes cast on motions at this meeting are being filed with the official minutes of this meeting at the Lower Loup Natural Resources District's Headquarters Office, 2620 Airport Drive, Ord, Nebraska. Publication notification of this meeting was made via a newspaper in each county within the district. The next Board of Directors meeting will be held March 26, 2026, at 4:00 p.m., at the Headquarters Office in Ord, Nebraska.

Larry Mohrman
Secretary

February 26, 2026, Slideshow on water sample protocols and result variability.

Slide 1



Slide 2

Staff
Qualifications
and
Procedures

License's required and
Continuing Education

NEBRASKA
DEPARTMENT OF WATER, ENERGY, AND ENVIRONMENT

ACTIVE WWS PROFESSIONAL

License Number: [input]
Countdown: Expires On: 01/31/2025

WWS Professional License Number: [input]
Name: [input] City: [input] State: [input] Zip Code: [input]

Professional Status: [input] (Default: L) [input] (Default: P)

Representative Details

Business Name	Business Location Address	City	State
Business Name: [input]	Business Location Address: [input]	City: [input]	State: [input]

Professional Information

License Type: [input]
New Entry: [input]

NEBRASKA
4000 L St., Grand Island, NE 68881
405 Lafayette Blvd., Lincoln, NE 68503

Information Employee Links Nebraska Department of Water, Energy, and Environment

Slide 3

Lower Loup Natural Resources District staff
License's

- 1 - Pump Installer Water Well Contractor
- 1 - Water Well Contractor
- 1 - Monitoring Well Installer
- 10 - Water Well Technician and a Water Operator License

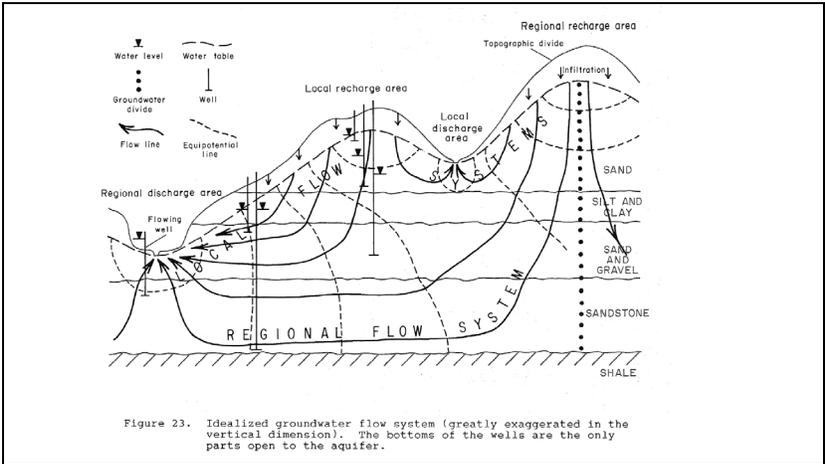
- Every one of these individuals are required to attend continuing education classes

Slide 7



Nitrate Result Variability

Slide 8

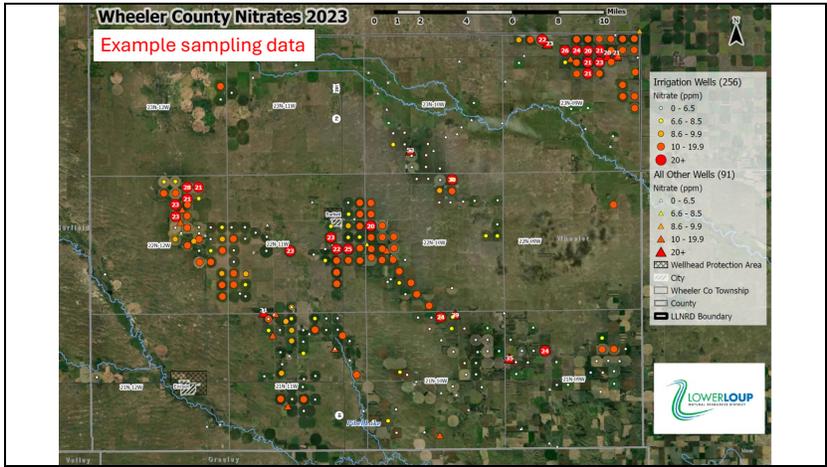


Slide 9

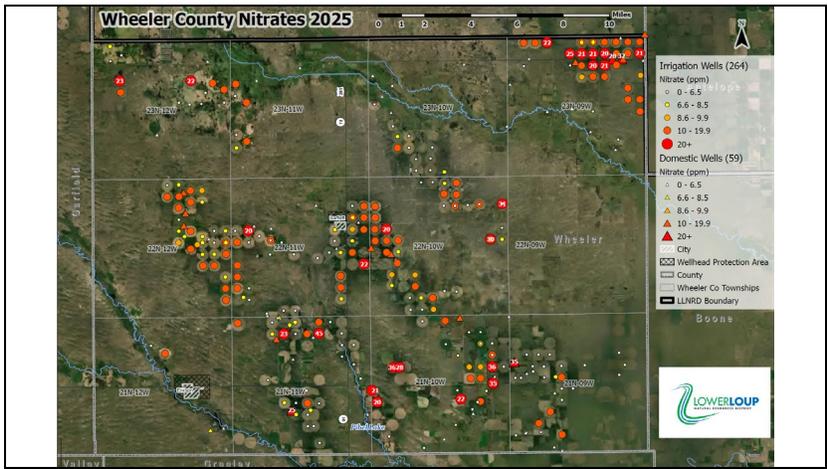
Wheeler County Groundwater Quality Monitoring: Understanding Nitrate Sampling Results

Chris Hobza, P.G.
USGS Central Plains Water Science Center
February 24, 2026

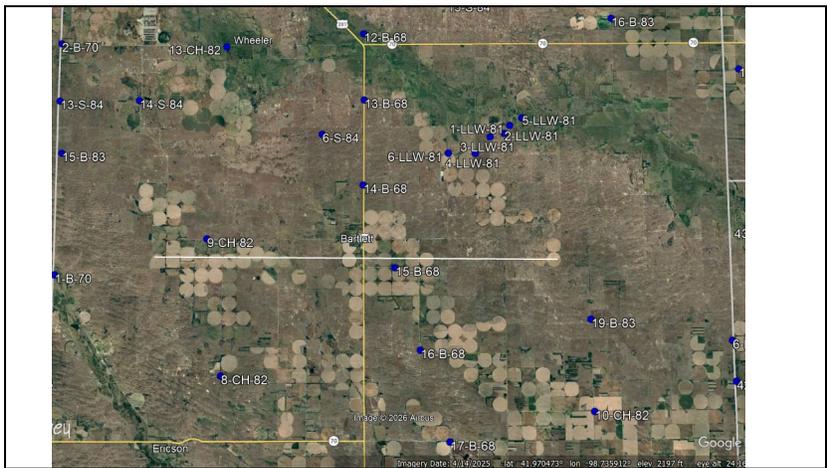
Slide 10



Slide 11



Slide 12

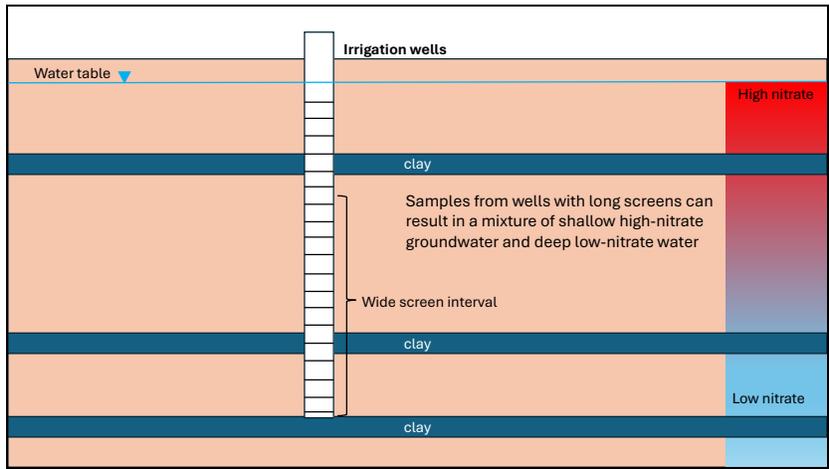


Slide 13

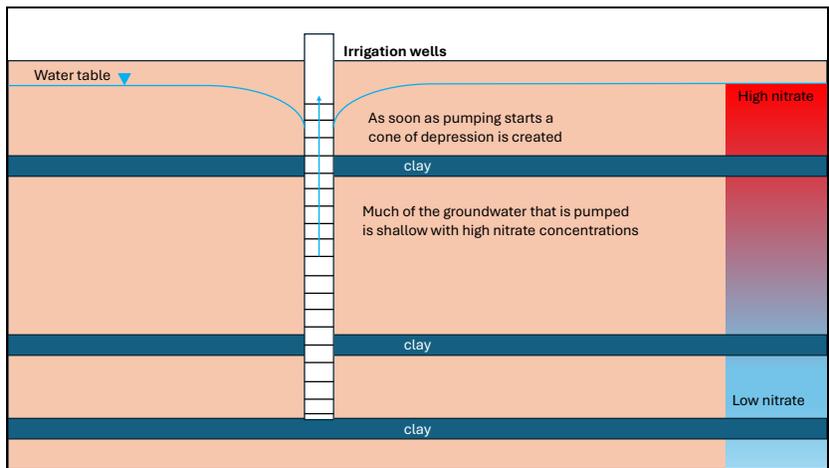
Monitoring groundwater quality in Wheeler County

- Groundwater nitrate sampling in Wheeler County relies on combination of short-screened monitoring wells and longer-screened irrigation wells
- Shallower groundwater likely has higher nitrate concentrations; deeper groundwater, especially near the base of the aquifer has little or no nitrate
- Within Wheeler County, groundwater is pumped from the High Plains or Ogallala Aquifer which has numerous highly permeable sand and gravel layers between much less permeable layers of clay and silt
- The layering of permeable layers of sand and gravel between less permeable layers can result in differences in water-quality and nitrate concentrations

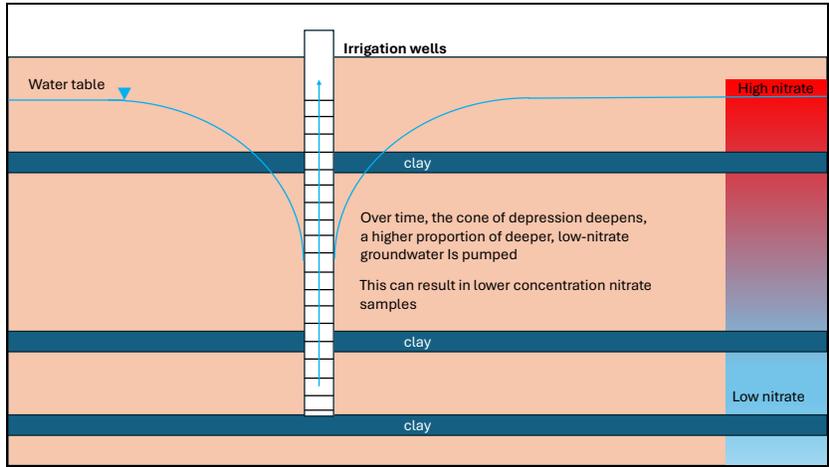
Slide 14



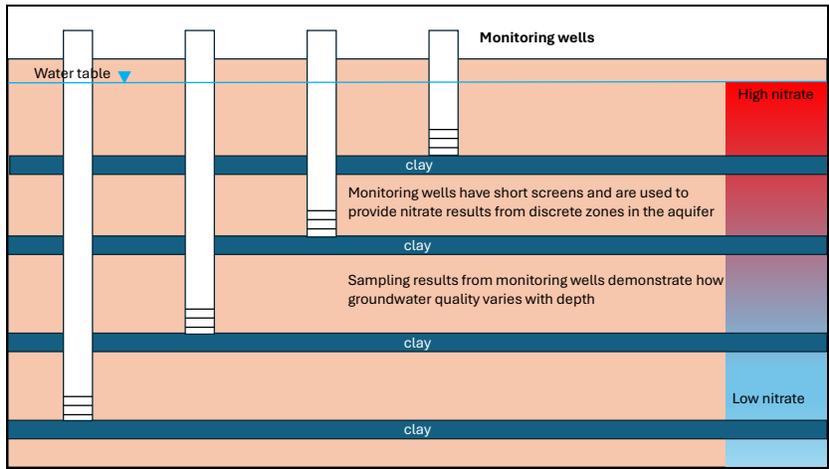
Slide 15



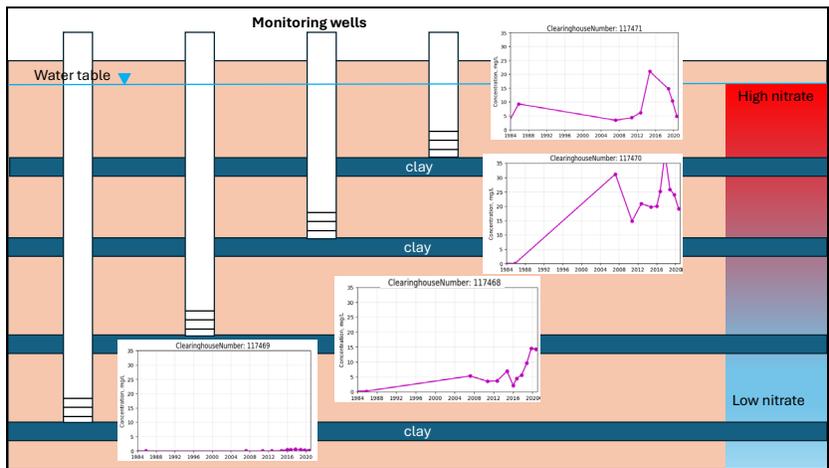
Slide 16



Slide 17



Slide 18



Slide 19

Monitoring groundwater quality in Wheeler County

Monitoring wells sample water from a distinct interval in the aquifer and generally show less variability over time

In contrast, nitrate results from sampled irrigation wells results in a mixture of high-nitrate shallow groundwater and low-nitrate deep groundwater can show large swings in nitrate concentration

Many of the irrigation wells sampled were installed in the 70s and early 80s with less stringent construction standards. Often irrigation wells were completed with a sand filter pack from the screen to land surface promoting to mixing of shallow and deep groundwater

Slide 20

Monitoring groundwater quality in Wheeler County

- In general, higher nitrate concentrations are sampled during wetter years likely because of high permeable soils and ample rainfall promote leeching of nitrate rich water
- The variability in the amount of groundwater irrigated year to year likely contributes to variability and concentration of nitrate in shallow groundwater

Year	Average pumped (inches)	Count
2019	2.92	22
2020	11.45	35
2021	12.48	55
2022	17.48	53
2023	9.24	49
2024	14.02	84
2025	10.78	85

Slide 21

Monitoring groundwater quality in Wheeler County

Nitrate concentrations of nitrate can decrease the longer a pivot has been running as a large proportion of the groundwater that is pumped

Denitrification, which is a natural process where bacteria in the absence of dissolved oxygen convert nitrate to nitrogen gas. The prevalence of denitrification across Wheeler County isn't known, but can result in large differences and swings in nitrate concentrations

Summary



There are many variables that factor into well nitrate concentrations.



The District uses a median number instead of average to help reduce high and low outliers.



The District uses 4 consecutive years as a trigger to also help alleviate one high year result triggering an area.