

Water Committee Meeting  
Wednesday, March 5, 2025 6:00 PM  
Lower Platte North NRD Office  
P.O. Box 126  
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. Meeting Date

At the last Committee Meeting only 2 members were present, so determining the meeting date and time was delayed. It has been requested to change the day and time. The Committee agreed on the same day as the other meetings, starting at 9 am,

3. REGULATORY

3.A. GROUND WATER MANAGEMENT AREA

3.A.1. Variance Request in the Hydrologically Connected Area (Limited Development Area)

Harlan Jacobson received an approved variance for SE1/4 S15-21N-4W, Madison County in October 2024. The well driller has drilled some test holes but developing a high-capacity well would be a challenge. He is asking if he could try some test holes on the N1/2 NE/4 S22-21N-4W. If he found a good source of water, he would pipe the water over to Section 15.

The committee discussed informing the producer about the Ttem sled from UNL. The other concern is locating the well in one tract and irrigating acres in the adjacent tract, if tract of land changed hands. Staff will discuss the concerns with the producer.

3.A.2. Well Permit Program

3.A.3. Transfer of Acres Request

Mike Kubic is requesting to transfer acres from S21,27,28 -15N-5E to S27-15N-6E, Saunders County. He would be requesting to drill a new well on S27-15N-6E. This tract of land is beyond 1 mile in the Restricted Area (Red).

Attached are the locations and UNL-CSD review.

3.A.4. Supplemental Well

This item is carried over from last month's Committee Meeting for Greg Kobza in S9-16N-3E.

Greg explained to the Committee his plan is to call this a replacement well if the new well produces enough water. He does not plan on attaching the 2 wells together but needs to drill the new well without abandoning the old wells initially.

3.A.5. Well Permit for Duck Pond

Scott Cassel of HF & F LLC has applied for a well permit to drill a 600 GPM

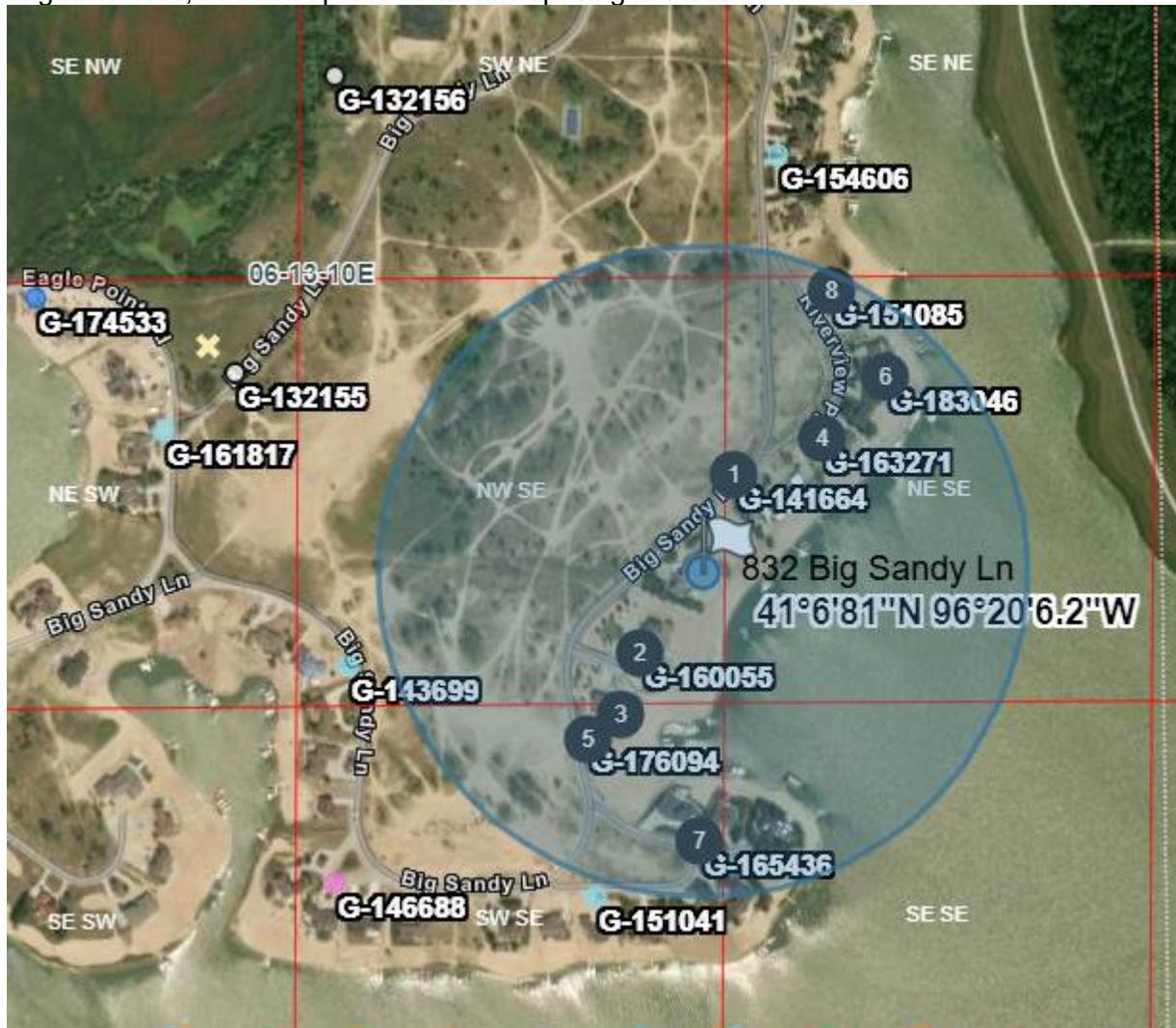
well for a duck pond in the NW NE S20-16-9E, Saunders County. He will fill this pond in October and November.

The committee asked staff to provide more information at the next committee meeting.

Attachments.

3.A.6. Lake Allure Well Permit

Lake Allure is requesting a municipal well permit. From Sargent Irrigation, this well would be used periodically with the current well but not connected. They would use both, but not at the same time. From NDEE a map is attached of a list of the registered location of wells within 1000 feet of the coordinates given by the driller's team. None of them are public water supply, commercial or irrigation wells, so I don't perceive a state spacing law issue.



3.A.7. Cost Share Programs

Flow Meter Cost Share Applications Received

Merlyn Bell and

Marty Eaton

\$1,000.00

Lawerance Svoboda	\$1,000.00
Robert Kluck Jr.	\$1,000.00
Robert Kluck Jr.	\$1,000.00
Robert Kluck Jr.	\$1,000.00
Harvy Best	\$1,000.00
Nancy Hinz	\$1,000.00
Thomas Kluck	\$1,000.00
Thomas Kluck	\$1,000.00
Joan Hasenkamp	\$1,000.00
Frances Kment	\$1,000.00
Mary Ann Marxsen	\$1,000.00
Mary Ann Marxsen	\$1,000.00
Beau Klug	\$1,000.00
Thomas Stibal	\$1,000.00
Dean Novak	\$1,000.00
Dean Novak	\$1,000.00
Dean Bell	\$1,000.00
Dean Bell	\$1,000.00
Allen Svatora	\$1,000.00
William Klug	\$1,000.00
Hilland Valley farms	\$1,000.00
Benjamin Klug	\$1,000.00

For a total of 26 meters with cost share assistance of \$26,000

Flow Meter Cost Share Invoice Cost Share Payment Approval

A Glenn Cluck Co. for \$14,000 for 14 meters  
 Richard Wolta \$3,000 for three meters.  
 Gregg Melliger \$2,000 for two meters.

RO Cost share applications that have met the standards for our Domestic Water

### Well Treatment Program.

Our cost share application states that LPNNRD will cover 75% of equipment and installation costs for a water treatment system up to \$800, as well as the registration cost of the domestic well, which is \$70. The following people is who we have applied:

Allen Svatora  
Allan Shonka  
Tim Svatora

### Cost Share Total Dollar Amounts Updates

Flow Meter: \$200,000  
Gravity to Pivot SDI Conversions : \$80,000  
Cover Crops: \$1,630.00  
Iron Chlorosis: \$3,000  
Fertigation Equipment: \$2,000  
Variable Rate Nitrogen Program: \$800.00  
Grid soil Sampling: \$400.00

#### 3.A.7.a. Flow Meter Maintenance Program

Flow Meter Maintenance is finished. Staff are working on inputting data received from Mark. We did receive the invoice for meter maintenance. A total of 342 flow meters were serviced. Note that we did go over budget. The rate for meter service has gone up per meter from \$70/meter to \$80/meter. The original budgeted amount was \$24,000. We received an invoice of \$27,705.00.

#### 3.A.8. LPNNRD Operator Certification

One last class is on March 18 at ENREEC, Ithaca, 7–9 pm.

#### 3.A.9. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The technical group met on March 3 where IMP reports were reviewed. Attached is LPN report.

### 3.B. Groundwater Management Plan

An invoice is attached from LRE for \$14,929.09 and \$6,775.00 per contract for January and February..

Copies will be provided at the Board Meeting for discussion goals and objectives and at the next committee meeting. Encourage all Board members to review and provide suggestions.

Shown below are the Groundwater Management Goals and Objectives, which need to be reviewed by the Committee.

## 1. Groundwater Management Goals and Objectives

The primary management target, defined below in the Vision Statement, is to maintain the 'groundwater reservoir life goal' - defined within the Rules and Regulations as the period of time which the District establishes as its goal for maintenance of the supply and quality of water in a groundwater reservoir. This goal can also be described as ensuring a safe yield for aquifers, which is the amount of water that can be sustainably withdrawn without causing long-term depletion or adverse effects on the aquifer and hydrologically connected water resources. The goals and objectives are intended to guide water resource management decision making.

***LPNNRD Groundwater Management Vision Statement***

*Strive for the continuous management of the groundwater reservoir, in perpetuity, to ensure it meets the standards appropriate for its various uses, including domestic, livestock, public water supply, public health, irrigation, agriculture, wildlife, industrial, and other beneficial uses. Minimizing, as much as possible, the adverse impact of these uses on the quantity and quality of groundwater that supports lakes, wetlands, and streams.*

By implementing the five goals and objectives shown below, the LPNNRD can ensure groundwater remains a reliable resource while protecting the ecosystems that depend on it. Goal categories include monitoring, pollution prevention, conservation, public education, and sustainable management plans and regulations.

1. Goal 1 - To continuously monitor and assess groundwater levels and quality to detect changes early.
  - **Objective 1.1** - The effort to monitor and sample water quality will be continued and expanded as necessary focusing on wells with known construction data.
  - **Objective 1.2** - Integrate scientific advances and research into plans and regulations.
  - **Objective 1.3** - Repeat annual water quality sampling to help understand nonpoint source contamination.
  - **Objective 1.4** - Collaborate with various partners to review and expand the water quality monitoring network.
  - **Objective 1.5** - Maintain and steadily expand the spring/fall water energy level monitoring network.
  - **Objective 1.6** - Explore opportunities to obtain real-time water use and aquifer level data from dedicated observation wells.
  - **Objective 1.7** - Continue expansion of the dedicated monitoring well network, for both quantity and quality purposes, at critical locations in the District.
  - **Objective 1.8** - Ensure pumping of groundwater does not directly degrade water quality.
  
2. Goal 2 - To reduce the potential for pollution to ensure a sustainable supply of high-quality, consumable, and safe groundwater for all users in the NRD.
  - **Objective 2.1** - Utilize available studies and tools to gain a stronger understanding of groundwater flow and contamination movement.

- **Objective 2.2** - Obtain and assess data that supports sustainable development decisions.
- **Objective 2.3** - Explore efforts for cost share programs that promote reduction of pollutants to the aquifer.
- **Objective 2.4** - Offer cost share for well decommissioning.
- **Objective 2.5** - Promote cutting-edge technologies to improve application efficiencies as nitrate-reducing tools.
- **Objective 2.6** - Proactively manage Phase Areas where vulnerable aquifers or excessive nitrate exist and recognize the importance of reducing nitrogen loading and leaching to aquifers that provide public water supplies.

3. Goal 3 - The LPNNRD will continue to encourage the use of highly-efficient water conservation management practices intended to maintain water levels.

- **Objective 3.1** - Utilize hydrogeologic and modeling data to assess the impacts of new uses and understand the response of water levels to drought or reduced precipitation trends.
- **Objective 3.2** - Promote efficient irrigation and farming practices to improve soil health, reduce erosion, and enhance water retention and recharge.
- **Objective 3.3** - Connect property owners to existing conservation programs that benefit water quality and quantity.
- **Objective 3.4** - Create a strategy for managing water declines and supporting communities during severe droughts.
- **Objective 3.5** - Continue management of Control Areas where thin or limited aquifers exist and recognize the importance of conjunctive management of hydrologically connected areas.

4. Goal 4 - Continue to be a resource for outreach and education of youth and adults emphasizing the importance of protecting groundwater resources.

- **Objective 4.1** - Involve stakeholders in the review process to gather diverse perspectives and needs.
- **Objective 4.2** - Expand public education programs to raise awareness about the relationship of nitrates to public health, along with other water quality issues and encourage water conservation measures.
- **Objective 4.3** - Utilize hydrogeologic data and studies to provide an opportunity for one-on-one education.
- **Objective 4.4** - Participate in natural resources workshops, county fairs, camps, and classroom presentations.
- **Objective 4.5** - Demonstrate cutting-edge technologies for water and fertilizer management.
- **Objective 4.6** - Provide information and education through news articles, social media, newsletters, brochures, and the website.

- **Objective 4.7** - Create a web-based graphic user interface to allow users to obtain and view hydrogeologic data and other relevant maps and information.

5. Goal 5 - To develop and enforce Rules and Regulations and plans that balance usage with natural replenishment rates and reduce contamination.

- **Objective 5.1** - Regularly update the Groundwater Management Plan and Rules and Regulations to meet changing water uses, emerging contaminants, and integration of the latest policies.
- **Objective 5.2** - Align regulations with new state and federal policies to ensure compliance and leverage available resources.
- **Objective 5.3** - Implement an adaptive management approach that allows for flexibility and adjustment based on monitoring results and changing conditions.
- **Objective 5.4** - Continue active participation in Lower Platte River Basin integrated and drought management plans and implementation.
- **Objective 5.5** - Encourage community participation in NDEE's Wellhead Protection Program.
- **Objective 5.6** - Utilize the hydrogeological based subareas to manage Control Areas, and as the basis for defining study areas for potential Phase Areas.
- **Objective 5.7** - Regularly review and update the Integrated Management Plan to balance water uses and ensure sustainable water management, including maintaining instream flows.
- **Objective 5.8** - Support and conduct special studies, research, and data gathering activities

### 3.C. Domestic Wells Permits

At the Groundwater Retreat, a discussion on permitting domestic wells was referred to the Committee for further discussion.

The concern is awareness of domestic wells being drilled at depths that might cause conflicts in the future.

Comments from UNWNRD. They will consider the potential impacts on domestic wells prior to issuing a high-capacity well permit in the area. This will be done via our groundwater model. As well, we spoke about the construction of domestic wells being a factor.

Finally, we discussed that in the UNWNRD mortgage lenders will have a well inspection - including a water quality sample - done prior to approving the loan.

The UNWNRD does not permit wells that are not considered high capacity.

Comments from Dick Ehrman:

Domestic (i.e. drinking water) wells that pump less than 50 gpm are statutorily exempt (and have been for decades) from NRD permits—see NRS §46-735. So

there's that. PMRNRD thought they would start permitting domestic wells back when they wrote their GWMP several years ago. I told Paul Woodward that would be not only going against statute, but ABSOLUTELY NUTS. Any idea how many additional staff members it would take to permit domestic wells, especially around Omaha and Lincoln???? In LPSNRD, we do permit non-domestic wells in our Remaining Area (the highly variable portion of our District outside of our Ground Water Reservoirs) down to 20 gpm, but the only real requirement there is a water quality sample for sodium, chloride, and TDS just to guard against saltwater intrusion. In Lancaster County, the County Health Department does require some sort of permit/registration as well as an inspection, but I'm not sure exactly what their legal basis is for that, and whether or not they can deny a domestic well. I know they do have requirements for wells in floodplains/floodways, but I try to stay as far away from that as possible.

So, long story short, domestic wells <50 gpm are statutorily exempt from NRD permitting. Period. There are other possibilities as with what we've done, but honestly the number of 20+ gpm non-domestic wells in our District have been so small that we're looking at getting rid of that requirement in our next round of revisions to our rules & regs. Anyhoo, hope that helps—holler if any other questions. Thanks!

4. GROUND WATER PROGRAMS

4.A. DECOMMISSIONED WELL PROGRAM

4.A.1. Well Estimates

No new wells has been reviewed and approved for decommissioning since the last Committee meeting.

Well Owner	Type of Well	Cost Share Estimate	County

4.A.2. Plugged Wells

No wells have been plugged, reviewed, and ready for cost share payment approval this month.

4.B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

4.B.1. Phase Area Update

Tim Rickert has a well which irrigates through a pivot and a gravity field. The gravity field is 19 acres with an existing meter at the pivot point. The NRD rules state that fields under 20 acres do not need to be reported. He is asking if he needs a second meter for the gravity field.

The committee directed staff to inform Tim that a meter would be required or installed where all water use is reported.

4.B.2. Eastern Nebraska Water Resources Assessment (ENWRA)

The group is planning on submitting an WSF grant to evaluate the Todd Valley Aquifer to determine where recharge is occurring. Is there an influence from the Platte River, Dakota Aquifer or natural occurring?

4.C. NEW MONITORING WELLS

Discussion at the Board Retreat revealed support for additional groundwater monitoring wells. Recent meetings with communities in the NRD also revealed a need for additional monitoring wells. Staff believe a Water Sustainability Fund (WSF) grant focused on test holes and monitoring wells in community Source Water Protection areas has a high probability of being funded. With that, staff have been prioritizing communities and working with Katie at ENRWA to develop a rough draft. At this time, staff recommend drilling a test hole in 10 communities and designing monitoring wells based on data collected from the test holes. This may include 1 to 3 monitoring well(s) at different depths per community. All test holes will be drilled by CSD first, and then we will contract out well drilling until funds are depleted. Communities include: Abie, Bellwood, Cedar Bluffs, David City, Malmo, Mead, Newman Grove, Prague, Weston, and Yutan.

The NRD would be applying for approximately \$416,000. The NRD would then be responsible for 40%, or approximately \$166,400. This includes the cost of drilling test holes, monitoring well construction, data logger cost, and Hydrovu subscription costs for the next 3 years.

5. SURFACE WATER PROGRAMS

6. OTHER

6.A. COMMENTS FROM THE PUBLIC

11/24/2014

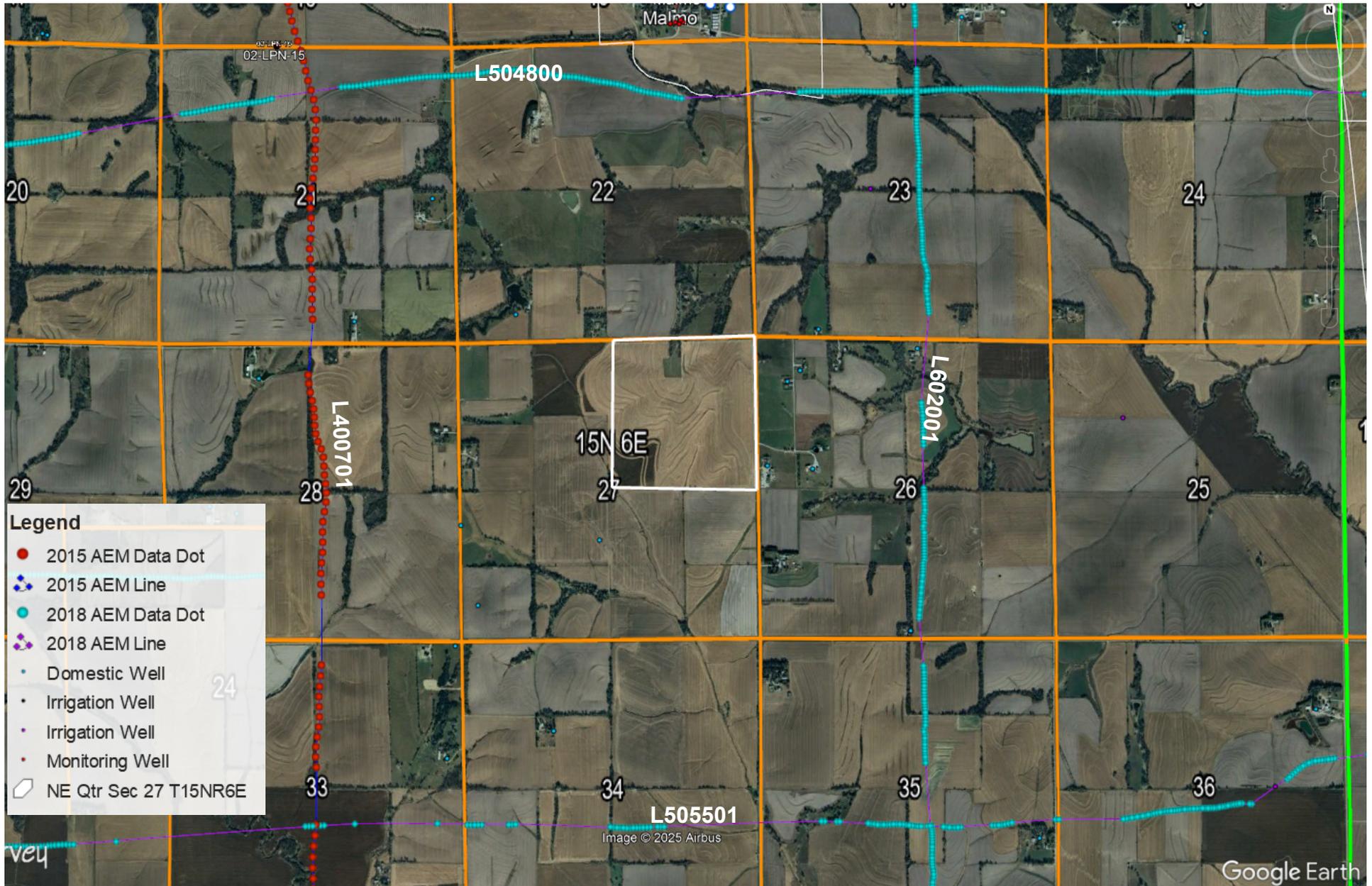


Receiving Areas

Red Boundary Lines

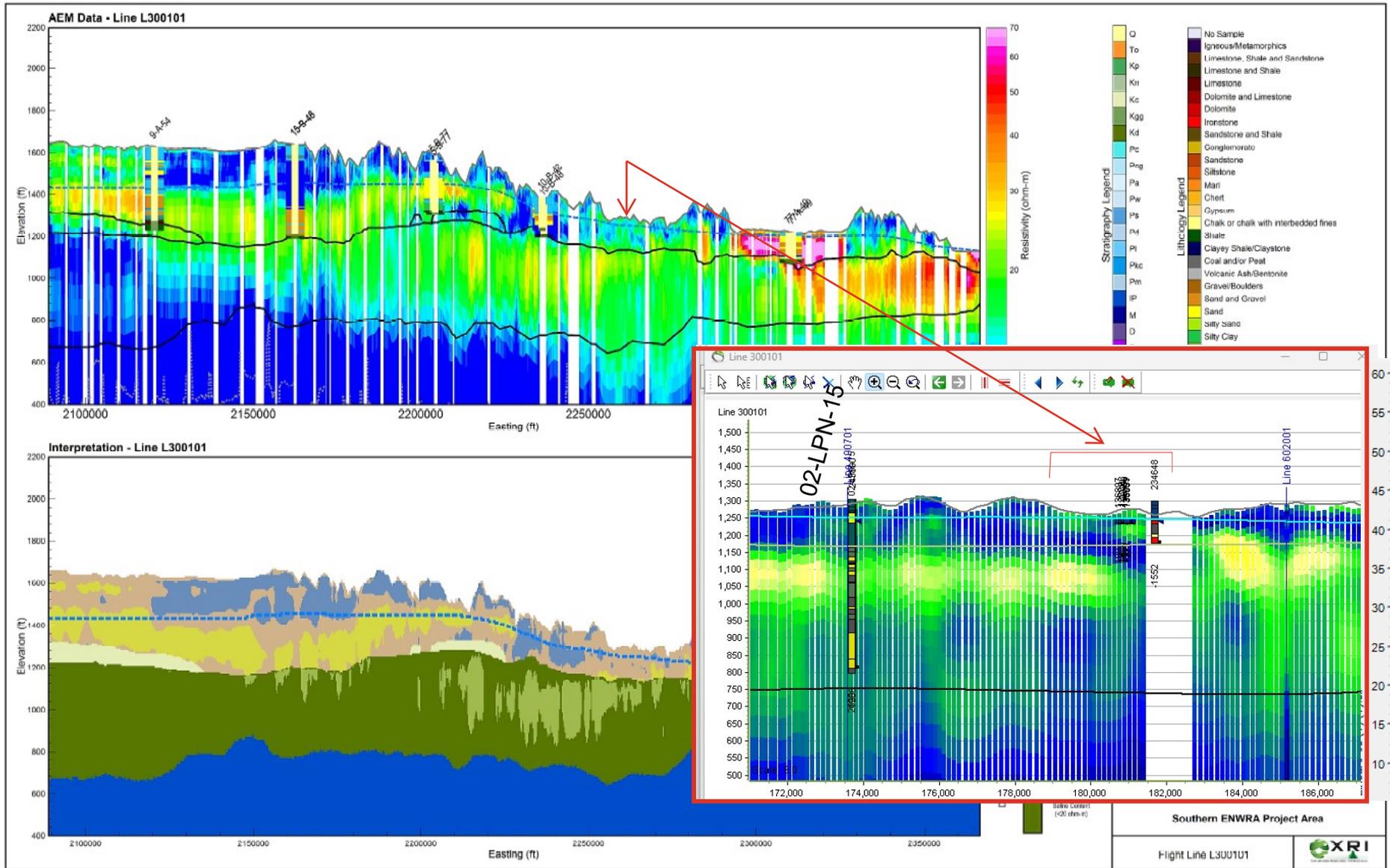
SQS #1 Areas that will be transferred

# Google Earth Map with AEM Survey Lines, Registered Wells and CSD Testholes



West

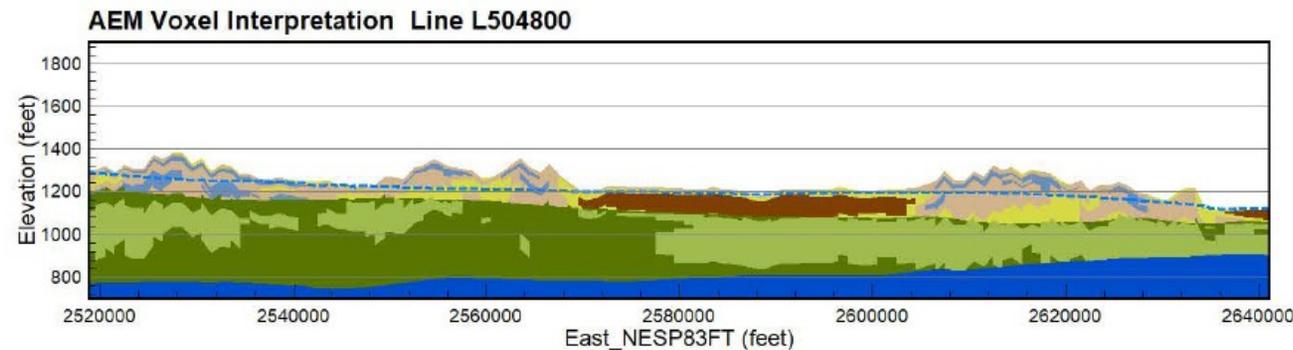
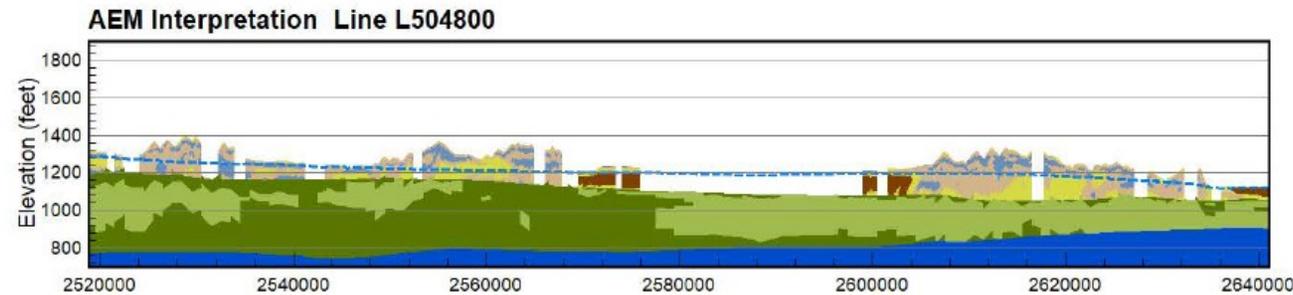
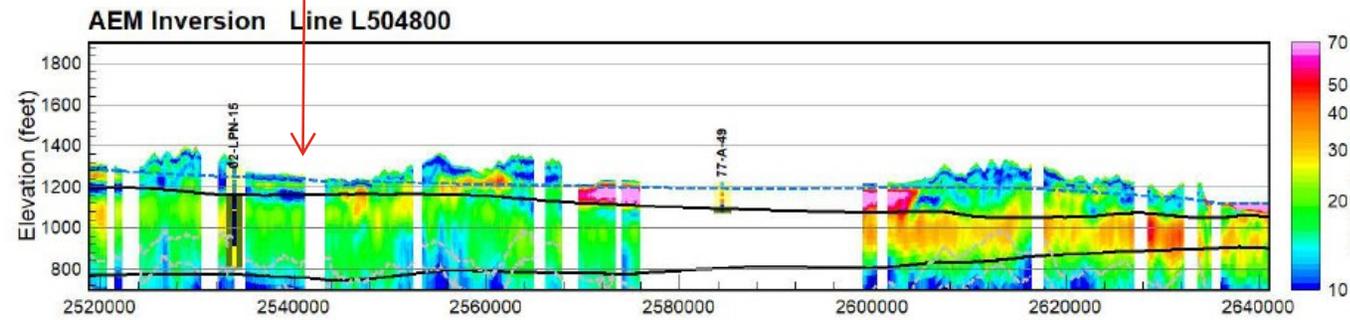
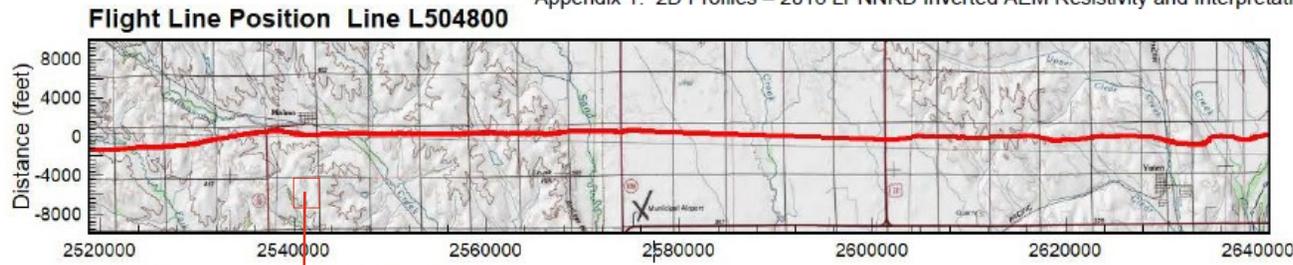
East



West

East

Appendix 1: 2D Profiles – 2018 LPNND Inverted AEM Resistivity and Interpretation



Results of the final inversion of Airborne Electromagnetic (AEM) data collected along flight lines within the Lower Platte North Natural Resources District (LPNND) June 22-July 14, 2018. The red line on the Flight Path Map (US Geological Survey 100K Topo) indicates the location of the data collection.

The AEM inversions shown are Spatially-Constrained using the Aarhus Geo Software Workbench version 5.8.3 in the indicated electrical resistivity color scale. Boreholes displayed on the AEM inversion profile are within 1/8 mile of the flight line and are from the Conservation Survey Division (CSD) public website downloaded on September 9, 2018. Lithology and stratigraphy are indicated by the legends. Gray-dashed lines when visible on the AEM inversions profile indicate the estimated depth of investigation (DOI). White gaps in the AEM inversion profile indicate gaps in data coverage due to electromagnetic coupling or areas that were not flown due to infrastructure. To-Tertiary Ogallala Group estimated contact is represented by a dashed-black line. Solid-black lines on the AEM Inversion profile indicate interpreted stratigraphic contacts (Kp= Cretaceous Pierre Shale, Kn= Cretaceous Niobrara Formation, Kc= Cretaceous Carlile Shale, Kgg= Cretaceous Greenhorn Limestone and Graneros Shale, Kd= Cretaceous Dakota Group, and IP= undifferentiated Pennsylvanian formations/groups. The 1995 CSD water table is represented by a dashed blue line.

The AEM interpretation profiles shows Q=Quaternary materials classified into the four groups indicated by the legend. Gaps in the quaternary materials are due to electromagnetic coupling or areas that were not flown due to infrastructure. To-Tertiary Ogallala Group estimated contact is represented by a dashed-orange line. Cretaceous units as well as the undifferentiated Pennsylvanian are indicated as continuous formations and are colored as indicated in the legend. The depth extent of the profile is optimized to illustrate the Quaternary materials.

The AEM Voxel Interpolation Profile indicates a 1,000-foot cell size interpolation of the Quaternary materials classified into the four groups indicated by the legend. In addition to the interpreted 1,000-foot cell size interpolation, sand/sandstone-dominant sections of the Cretaceous Dakota Group are indicated in the legend.

Prepared for the LPNND and the Eastern Nebraska Water Resources Assessment (ENWRA) by Aqua Geo Frameworks, LLC.

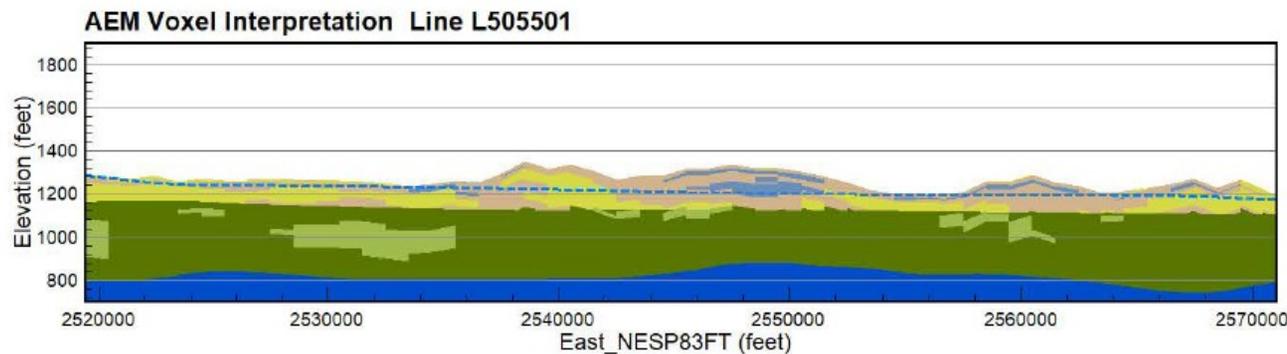
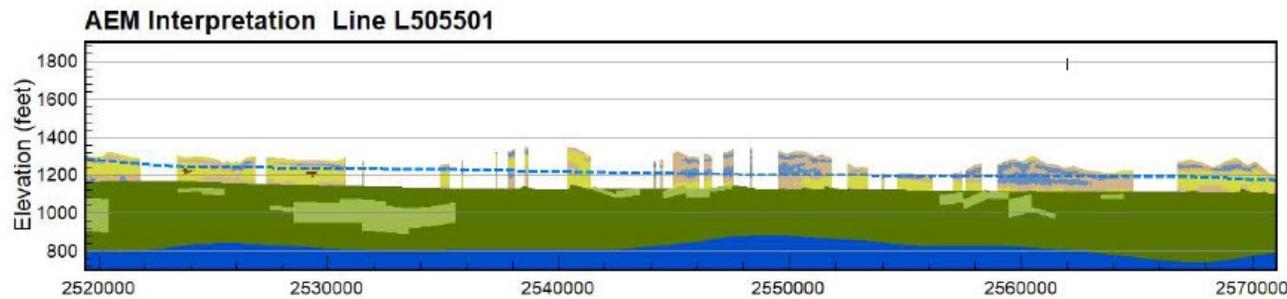
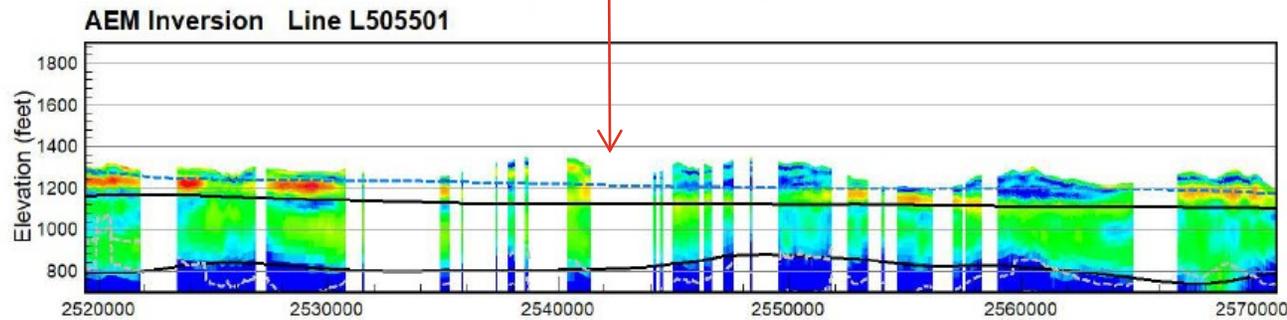
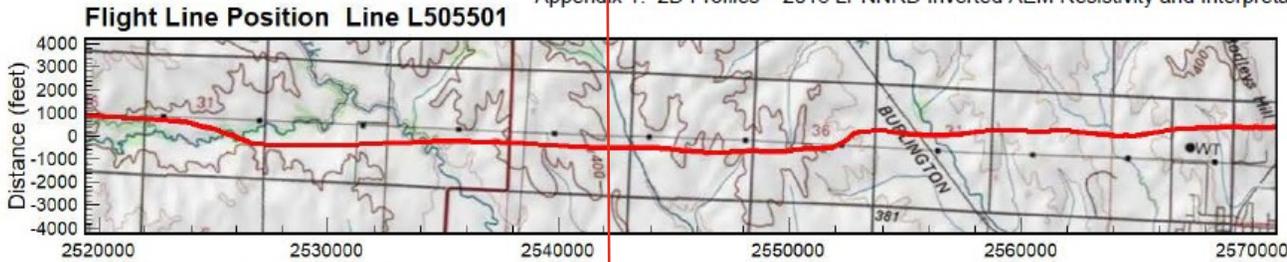
<p><b>Quaternary Aquifer Material</b></p> <ul style="list-style-type: none"> <li>Coarse</li> <li>Aquifer</li> <li>Marginal</li> <li>Non</li> </ul>	<p><b>Kd Aquifer Material</b></p> <ul style="list-style-type: none"> <li>Sandstone/Sand Dominant</li> <li>Shale/Clay Dominant</li> </ul>	<p><b>CSD Stratigraphy</b></p> <ul style="list-style-type: none"> <li>Q</li> <li>Tp</li> <li>Kp</li> <li>Kn</li> <li>Kc</li> <li>Kgg</li> <li>Kd</li> <li>IP</li> </ul>	<p><b>CSD Lithology</b></p> <ul style="list-style-type: none"> <li>No Sample</li> <li>Unconsolidated</li> <li>Limestone, Shale and Sandstone</li> <li>Limestone and Sand</li> <li>Limestone</li> <li>Dolomite and Limestone</li> <li>Dolomite</li> <li>Sandstone and Shale</li> <li>Conglomerate</li> <li>Sandstone</li> <li>Mud</li> <li>Clay</li> <li>Siltstone</li> <li>Siltstone</li> <li>Chalk or chalk with interbedded fine shale</li> <li>Shale</li> <li>Clayey shale/siltstone</li> <li>Clay and siltstone</li> <li>Volcanic Ash/Benkenite</li> <li>Gravel Boulders</li> <li>Sand and Gravel</li> <li>Sand</li> <li>Silty Sand</li> <li>Silty Clay</li> <li>Sandy Clay</li> <li>silt/clay</li> <li>Clay</li> <li>Till</li> <li>Roofed and/or Topsoil</li> </ul>
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West

East

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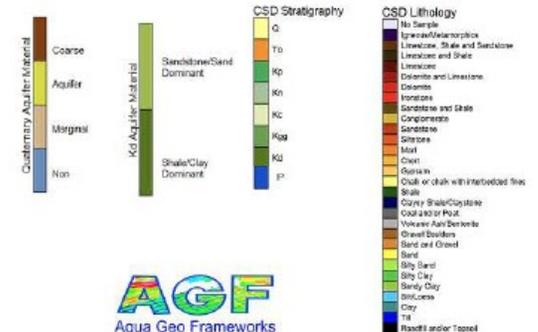
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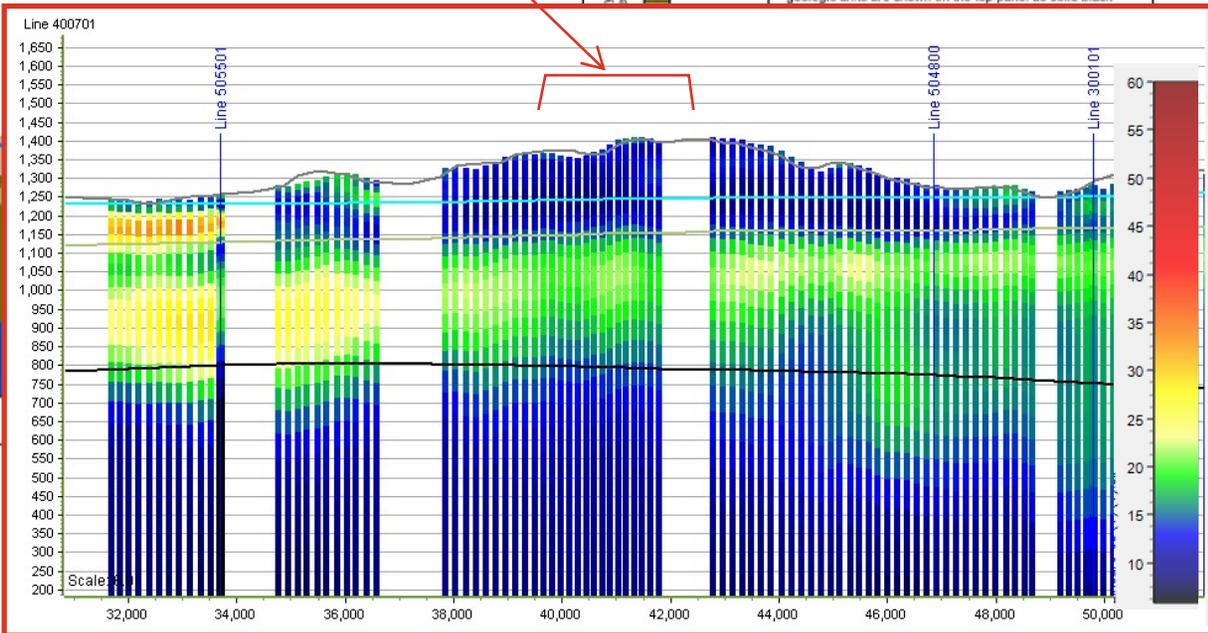
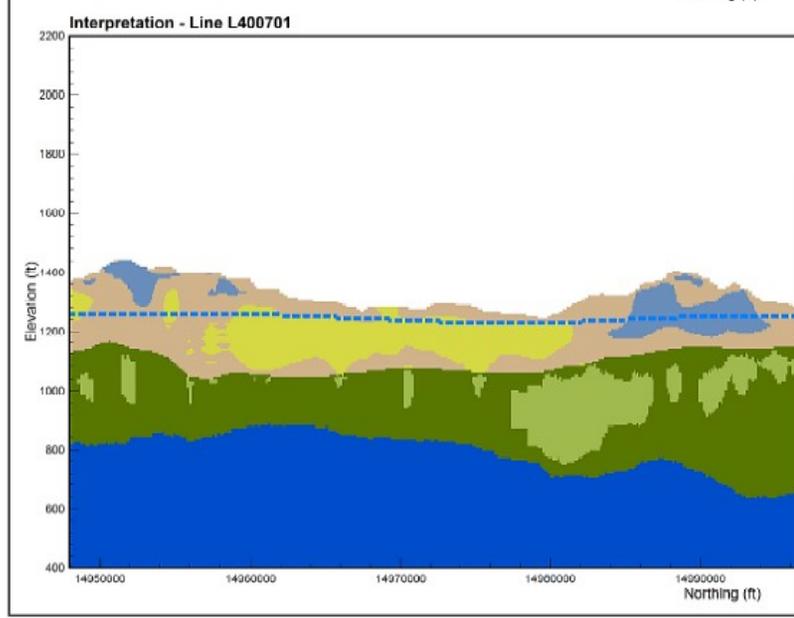
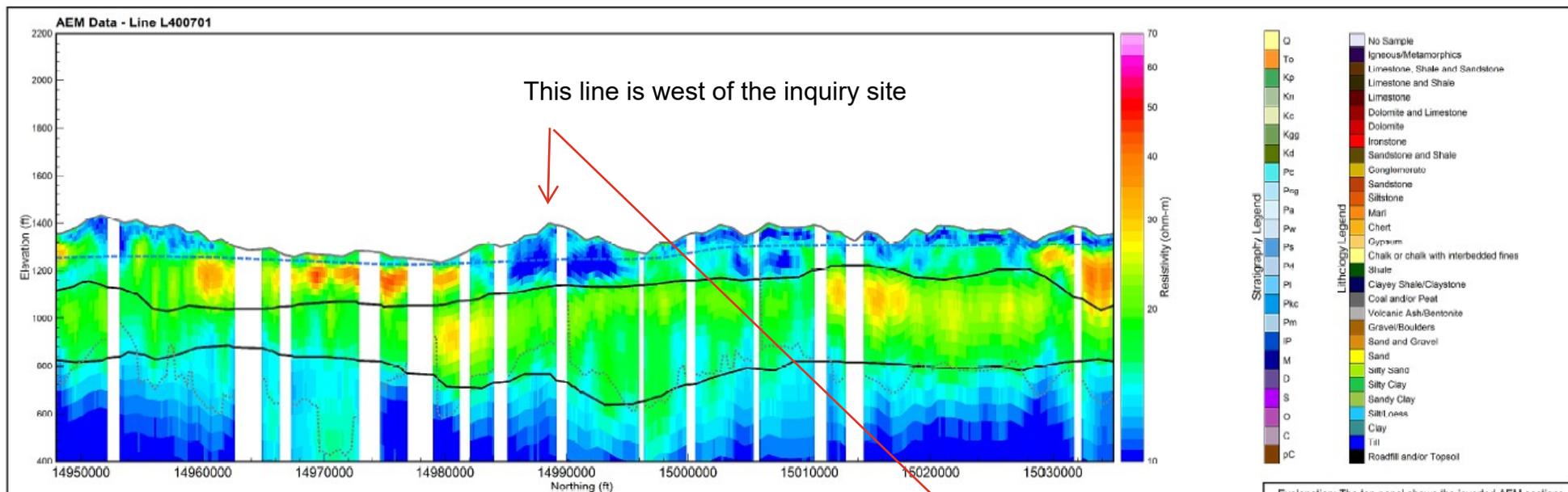
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Prepared for the LPNNRD and the Eastern Nebraska Water Resources Assessment (ENWRA) by Aqua Geo Frameworks, LLC.



South

North



Explanation: The top panel shows the inverted AEM sections from the southern project area flight lines. The x-axis is shown as Easting or Northing coordinates along the flight line in NAD83 UTM Zone 14 using feet. See the Line Location map for specific line location. White space in the top panel shows where data were removed due to coupling or were not flown due to FAA regulations. CSD boreholes within 1 mile of the flight line are also shown with lithology and stratigraphy. The stratigraphy data overlays the lithology data at each borehole. The CSD 1995 water table is shown on both panels as a dashed blue line. The interpreted geologic units are shown on the top panel as solid black.

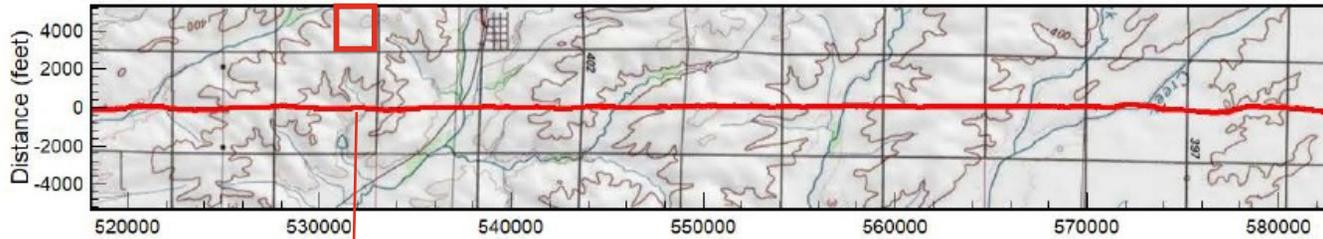
This Line is East of the Inquiry Site

South

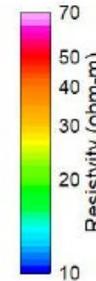
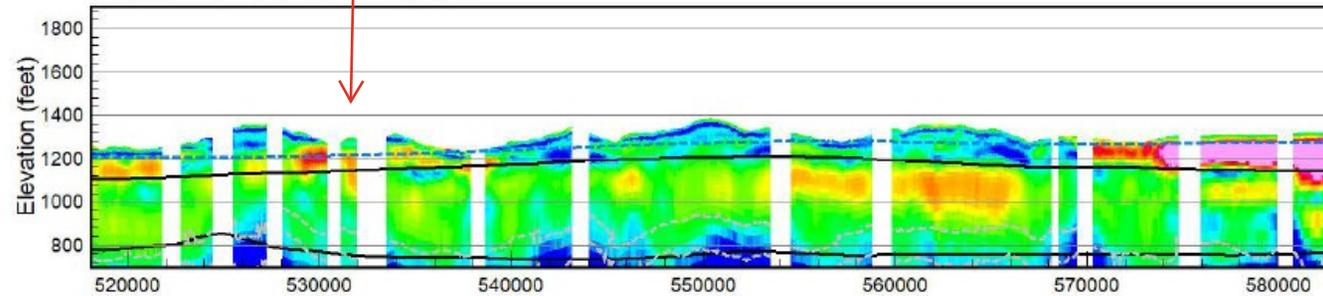
North

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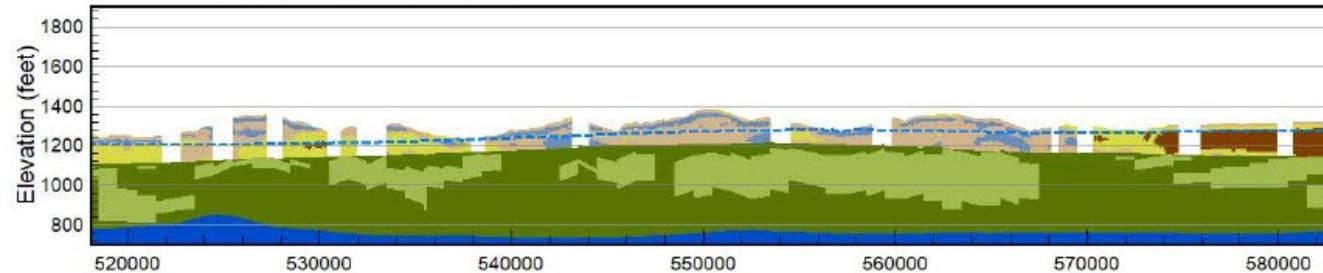
Flight Line Position Line L602001



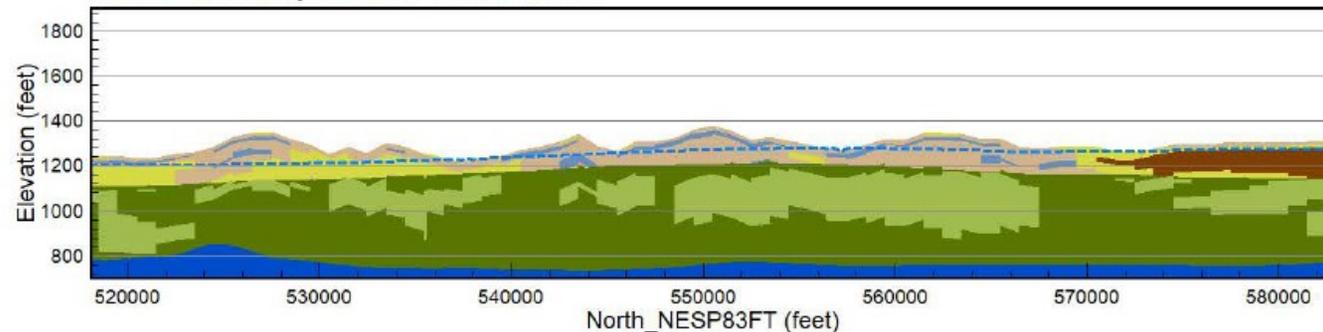
AEM Inversion Line L602001



AEM Interpretation Line L602001



AEM Voxel Interpretation Line L602001



Results of the final inversion of Airborne Electromagnetic (AEM) data collected along flight lines within the Lower Platte North Natural Resources District (LPNNRD) June 22-July 14, 2018. The red line on the Flight Path Map (US Geological Survey 100K Topo) indicates the location of the data collection.

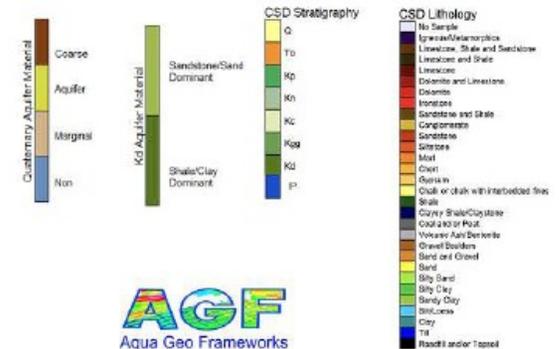
The AEM inversions shown are Spatially-Constrained using the Aarhus Geo Software Workbench version 5.8.3 in the indicated electrical resistivity color scale. Boreholes displayed on the AEM inversion profile are within 1/2 mile of the flight line are from the Conservation Survey Division (CSD) public website downloaded on September 9, 2018. Lithology and stratigraphy are indicated by the legends. Gray-dashed lines when visible on the AEM inversions profile indicate the estimated depth of investigation (DOI). White gaps in the AEM inversion profile indicate gaps in data coverage due to electromagnetic coupling or areas that were not flown due to infrastructure. To=Tertiary Ogallala Group estimated contact is represented by a dashed-black line. Solid-black lines on the AEM Inversion profile indicate interpreted stratigraphic contacts (Kp=Cretaceous Pierre Shale, Kn=Cretaceous Niobrara Formation, Kc=Cretaceous Carlisle Shale, Kgg=Cretaceous Greenhorn Limestone and Graneros Shale, Kd=Cretaceous Dakota Group, and IP=undifferentiated Pennsylvanian formations/groups. The 1995 CSD water table is represented by a dashed blue line.

The AEM interpretation profiles shows Q=Quaternary materials classified into the four groups indicated by the legend. Gaps in the quaternary materials are due to electromagnetic coupling or areas that were not flown due to infrastructure. To=Tertiary Ogallala Group estimated contact is represented by a dashed-orange line.

Cretaceous units as well as the undifferentiated Pennsylvanian are indicated as continuous formations and are colored as indicated in the legend. The depth extent of the profile is optimized to illustrate the Quaternary materials.

The AEM Voxel Interpolation Profile indicates a 1,000-foot cell size interpolation of the Quaternary materials classified into the four groups indicated by the legend. In addition to the interpreted 1,000-foot cell size interpolation, sand/sandstone-dominant sections of the Cretaceous Dakota Group are indicated in the legend.

Prepared for the LPNNRD and the Eastern Nebraska Water Resources Assessment (ENWRA) by Aqua Geo Frameworks, LLC.



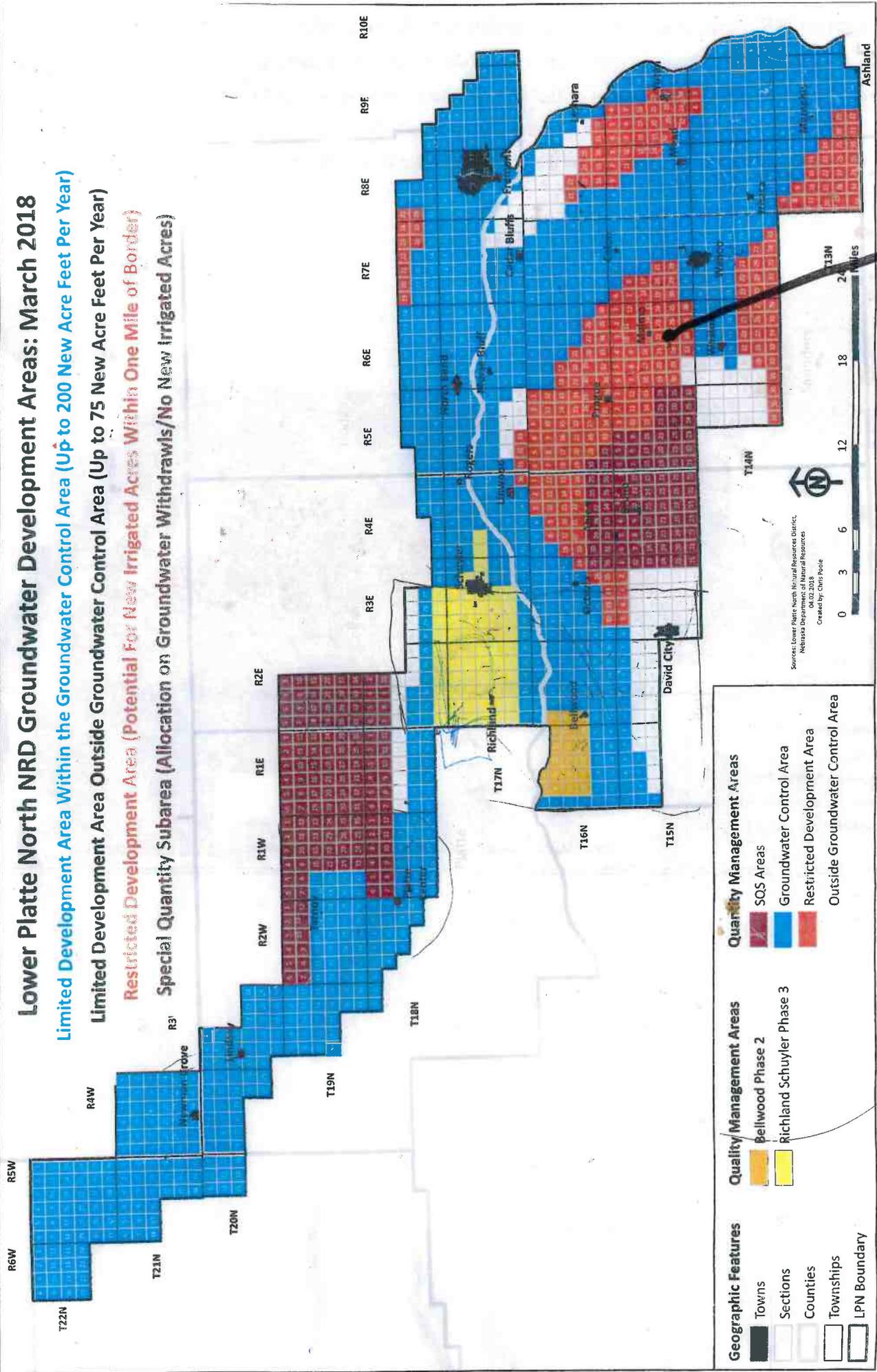
# Lower Platte North NRD Groundwater Development Areas: March 2018

Limited Development Area Within the Groundwater Control Area (Up to 200 New Acre Feet Per Year)

Limited Development Area Outside Groundwater Control Area (Up to 75 New Acre Feet Per Year)

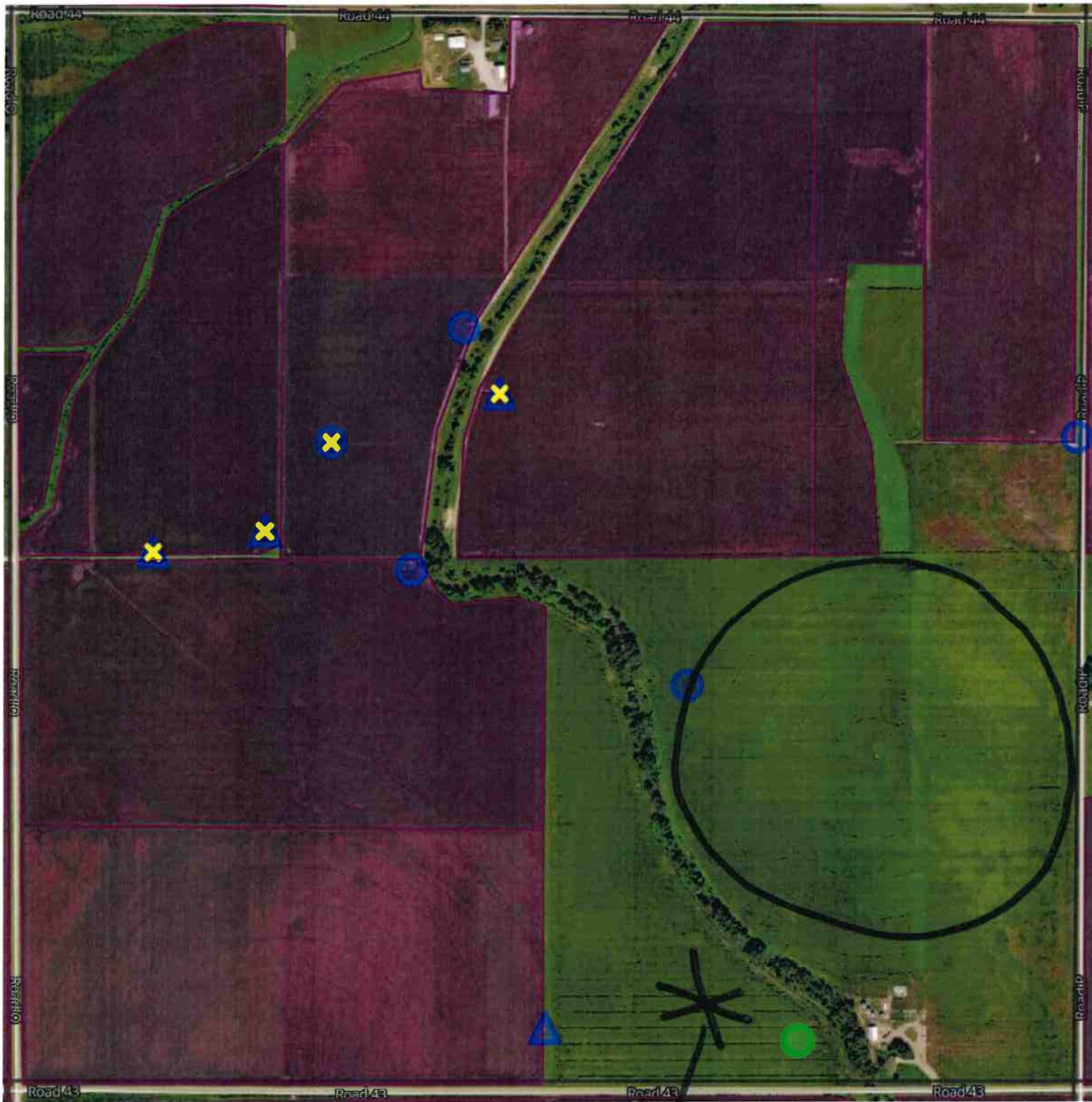
Restricted Development Area (Potential For New Irrigated Acres Within One Mile of Border)

Special Quantity Subarea (Allocation on Groundwater Withdrawals/No New Irrigated Acres)



Location  
S27-15N-6E

Sources: Lower Platte North Natural Resources District,  
Nebraska Department of Natural Resources  
04.02.2018  
Created by: Chris Poole



Well location  
SW SE S9-16N-3E  
Butler County





Duck pond well

Platte River

Leshara Rd

Leshara

Image © 2025 Airbus

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL  
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

DNR & NRD USE ONLY			
Permit No. _____	Date Approved/Denied _____	NRD Representative _____	
Permit Type: New, Replacement or Late _____	Date Received _____	Paid: Cash or Check _____	
Date Post-inspected _____	Registration No. _____	Updated Form: June 2022	

ALL APPLICANTS SEEKING A WATER WELL PERMIT MUST COMPLETE PAGES 1 AND 2, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 1 - 4 WELL PERMIT)  
 WATER WELL PERMITS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 3 WELL PERMIT)  
 WATER WELL PERMITS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 4 WELL PERMIT)

<b>1. NAME AND ADDRESS OF LAND OWNER:</b> <u>HF : F LLC</u> <u>1303 N 136 Ave.</u> <u>Omaha NE 68154</u> Phone: _____	<b>NAME AND ADDRESS OF CONTACT:</b> <u>Ryan Glow</u> _____ Phone: <u>402 238 6622</u>
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**2. PURPOSE OF NEW WATER WELL (indicate one):**

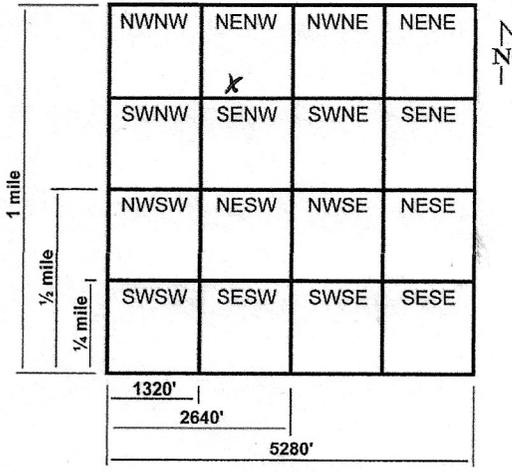
<input type="checkbox"/> Irrigation (Complete section A)	<input type="checkbox"/> Dewatering (Over 30 days, Complete section B)
<input type="checkbox"/> Livestock (Complete section C)	<input type="checkbox"/> Domestic (Irr. on one acre or larger, Complete section D)
<input type="checkbox"/> Industrial (Complete section E)	<input type="checkbox"/> Public Water Supply (Complete section F)
<input type="checkbox"/> Recovery or Remediation (Complete section G)	
<input checked="" type="checkbox"/> Other (specify) <u>Duck Pond</u> (Complete section H)	

**3. IDENTIFY LOCATION OF PROPOSED WELL:**

A. Saunders County, NW 1/4 of the NE 1/4 of Section 20, Township 16 North, Range 9E  
 (East/West. (circle one))

B. The box at the right represents one square mile, (section). Indicate with an "X", the proposed location of the well. Outline the proposed water use area. If the water is to be used outside the above written legal description, give legal description of water use area, \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West.

C. The well will be located 699 feet from the North South section line, and will be 1992 feet from the East West section line. Or enter Lat. / Long.  
 Latitude Degree 41 Minute 20 Second 52.74  
 Longitude Degree -96 Minute 25 Second 58.15



**4. REPLACEMENT AND ABANDONED WELL INFORMATION:**

A. Is this a replacement well?  Yes,  No. If yes, fill out the rest of this section.

B. Registration number of well to be replaced: \_\_\_\_\_

C. Well to be replaced was last operated (month/year): \_\_\_\_\_

D. Replacement well is \_\_\_\_\_ feet from original well.

E. Decommissioning of Original well on (month/day/year): \_\_\_\_\_

F. If water use is for irrigation, list the number of acres watered by the original well: \_\_\_\_\_

G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well?  
 Yes,  No: If No, list the number of additional acres \_\_\_\_\_ and legal description \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West. (circle one)

- A replacement water well must deliver water to the same tract of land as the original water well, pump from a comparable aquifer, and yield approximately the same gallons per minute and total annual water use as the original water well.

5. SPECIFICATIONS OF INTENDED WELL AND PUMP:

- A. Approximate date when construction will begin (month/day/year): April 2025
- B. Expected total well depth: 70 feet.
- C. Well Casing Diameter: 16 inches.
- D. Pump Column Diameter: 6 inches.
- E. Estimated pumping capacity: 600 GPM.
- F. Expected total annual water use in Acre Inches / Year 24 or Total Gallons / Year \_\_\_\_\_
- G. The system is to be powered by  Electric  Fuel
- H. Will the well be used in a system with other wells?  Yes,  No. If Yes, How many \_\_\_\_\_  
List well registration number and legal description of each well in Section 6 below.
- I. Name of Well Driller: AWS Well Co. (Please attach test hole log, if available.)

6. List additional information requested in this Section or attached additional sheet.

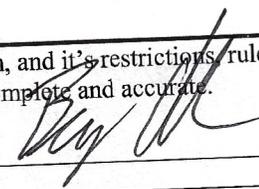
well will be used to flood approximately 10 acres during duck hunting season.

7. Addition information and requirements for Lower Platte North NRD review.

- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
- Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
- All new and replacement water wells must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31<sup>st</sup> of the following year. See approved list in this packet.
- Water well permit conditions maybe required for approval by the Lower Platte North NRD for each individual well.

8. I certify that I am familiar with the information contained in this application, and it's restrictions, rules and regulations and that to the best of my knowledge and belief such information is true, complete and accurate.

Date 19 Feb 2025

Signature of Applicant 

Signature of Well System Operator, if different than Applicant \_\_\_\_\_

NRD Certification Number of Landowner or Operator \_\_\_\_\_ (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

9. Lower Platte North NRD Use Only. Comments by District Representative.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL  
IN THE *LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT***

**WATER WELL PERMIT FOR IRRGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL  
ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR, PROVIDE INFORMATION  
REQUESTED ON PAGES 1, 2, AND 3. (CLASS 3 WELL PERMIT)**

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**10. WATER SOURCE INFORMATION:**

In a TWO-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. List of all registered wells in this area giving registration number, well identification number, legal description, latitude / longitude or UTM coordinates in NAD 83, elevation in feet above mean sea level, and well log for each well.
  - B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
  - C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.
- 

**11. WATER USE LOCATION INFORMATION:**

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

- A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
  - B. Amount of water that will be reused or recycled at this new location.
  - C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.
-

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL  
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

**WATER WELL PERMIT FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE  
FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATED ACRES, PROVIDE INFORMATION  
REQUESTED ON PAGES 1, 2, AND 4. (CLASS 4 WELL PERMIT)**

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**12. WATER SOURCE INFORMATION:**

In a FIVE-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. List of all registered wells in this area giving registration number, well identification number, legal description, elevation in feet above mean sea level, latitude / longitude or UTM coordinates in NAD 83, and well log for each well.
  - B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
  - C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.
- 

**13. WATER USE LOCATION INFORMATION:**

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

- A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
  - B. Amount of water that will be reused or recycled at this new location.
  - C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.
- 

**14. AQUIFER PUMP TEST:**

In the location of the proposed water source a District approved aquifer pump test is to be performed to obtain geologic data that will be used in the ensuing ground water modeling effort. Data from the pump test is to be reported to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. Description of pumping well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, elevation of well in feet above mean sea level, total amount of water pumped, gallons per minute during pump test, duration of pump test, well construction, well log, water discharge location and method.
  - B. Description of each monitoring well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, spacing in feet and direction from pumping well, elevation of well in feet above mean sea level, well log, and well construction.
  - C. Depth to bedrock, bedrock material, and name of geologic formation.
- 

**15. GROUNDWATER MODEL:**

In a FIVE-mile radius of the location of the proposed water source a ground water model using MODFLOW software, or similar software approved by LPNNRD, is to be done. Data from the ground water model is to be reported to the LPNNRD in both paper copy and electronically using the appropriate software.

- A. Model should list boundary conditions used, grid size, include all high capacity wells in modeled area, streams and rivers in the modeled area, expected recharge rates, location and flow amounts, hydrologic conductivity and transmissivity values used.
  - B. At least one iteration, reviewed and approved by LPNNRD, should model steady state conditions over a five-year period with a no flow boundary, and little or no recharge to simulate drought conditions.
-

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL  
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

**PURPOSE OF WELL**

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**IRRIGATION WELLS (SECTION A)**

- A. How many acres will be irrigated? \_\_\_\_\_ acres
- B. Crops to be planted: \_\_\_\_\_ Crop rotation schedule \_\_\_\_\_
- C. Type of irrigation system.  Center Pivot,  Gravity,  Other (specify) \_\_\_\_\_
- D. The irrigation system is to be powered by  Electric  Fuel
- E. Expected total annual consumptive water use in Acre Inches / Year \_\_\_\_\_ or  
Total Gallons / Year \_\_\_\_\_
- F. Will Fertilizer, Chemicals or Animal waste be applied through the system?  Yes,  No

---

**DEWATERING WELLS OVER 30 DAYS (SECTION B)**

- A. Purpose of dewatering well, such as installation of building foundation, etc. \_\_\_\_\_
- B. Expected total number of days the dewatering well will be in use \_\_\_\_\_
- C. Approximate dates (month/day/year) in operation: Start \_\_\_\_\_ End \_\_\_\_\_
- D. Legal description of water discharge location: \_\_\_\_\_ ¼ of the \_\_\_\_\_ ¼ of Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West and name of river, stream or water body \_\_\_\_\_
- E. Will discharge water be used for another purpose, such as livestock, irrigation, etc.?  Yes,  No  
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.  
\_\_\_\_\_  
\_\_\_\_\_

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**LIVESTOCK WELLS (SECTION C)**

- A. Name of facility \_\_\_\_\_
- B. Type of Livestock:  Feeder Cattle,  Dairy Cattle,  Swine over 55 lbs.,  Swine under 55 lbs.,  
 Sheep,  Poultry,  Horses
- C. Average number of livestock per year \_\_\_\_\_ and average weight per animal \_\_\_\_\_ lbs.
- D. Peak number of livestock \_\_\_\_\_ and time of year \_\_\_\_\_
- E. Is facility approved by Nebraska Department of Environmental Quality?  Yes,  No. If Yes, list NDEQ certification IIS number \_\_\_\_\_ If No, complete the rest of this section.
- F. Type of facility:  Open lot,  Covered Building
- G. If facility is Open lot, list soil type \_\_\_\_\_
- H. Estimated depth to ground water under feedlot \_\_\_\_\_ ft.
- I. Describe manure collection system of feedlot \_\_\_\_\_  
\_\_\_\_\_
- J. Name and distance of nearest surface watercourse from feedlot \_\_\_\_\_
- K. For each manure land application site, list legal description and size in acres, method of application, and distance from feedlot operation. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

**DOMESTIC WELLS WITH IRRIGATION ON ONE ACRE OR MORE (SECTION D)**

- A. Check all that apply:
  - a. Water use:  Lawn and number of acres to be irrigated \_\_\_\_\_ acres.
  - b. Water use:  Commercial garden and number of acres to be irrigated \_\_\_\_\_ acres.
  - c. Water use:  Tree Farm and number of acres to be irrigated \_\_\_\_\_ acres.
  - d. Water use:  Type of livestock \_\_\_\_\_ and number \_\_\_\_\_
- B. Type of irrigation system.  Sprinkler,  Drip Tape,  Other (specify) \_\_\_\_\_
- C. If applicable, give Street address and town \_\_\_\_\_

\* One acre equals 43,560 square feet.

**INDUSTRIAL AND COMMERCIAL WELLS**

**(SECTION E)**

- A. Name of facility \_\_\_\_\_
- B. Products produced by facility \_\_\_\_\_
- C. In Section 6 or on a separate sheet of paper, list well registration number and legal description of current wells supplying water to this facility.
- D. In Section 6 or on a separate sheet of paper, provide a short description how water is used within the facility and the expected annual amount of water for each use. For example: "The manufacturing plant will use 45% of total annual water use, or 1.45 million gallons per year, for electroplating of galvanized pipe and the remaining 55% of total annual water use, or 1.77 million gallons per year, will be used for non-contact cooling water throughout the plant".
- E. Will any of the used water or waste water from this facility be re-used for another purpose?  Yes,  No.  
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

**PUBLIC WATER SUPPLY WELLS**

**(SECTION F)**

- A. On a separate sheet of paper, list the well registration numbers and legal description of current wells supplying water to this community.
- B. Attach a list of the five largest industrial water users that your community supplies water to, and the total annual amount of water supplied to each of these industries for the last five years.
- C. For these same industries list the total annual amount of water returned to the community as waste water for each of the last five years.
- D. Will waste water be used for another purpose, such as livestock, irrigation, etc.?  Yes,  No  
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
- E. Attach a list of the golf courses that the community supplies water to and list the location and number of acres for each one.

**RECOVERY OR REMEDIATION WELLS**

**(SECTION G)**

- A. Reason for recovery or remediation well, i.e. leaking underground storage tank. \_\_\_\_\_
- B. Contaminates of concern \_\_\_\_\_
- C. Treatment method of contaminants \_\_\_\_\_
- D. Approximate dates (month/day/year) in operation: Start \_\_\_\_\_ End \_\_\_\_\_
- E. Legal description of water discharge location: \_\_\_\_ ¼ of the \_\_\_\_ ¼ of Section \_\_\_\_, Township \_\_\_\_ North, Range \_\_\_\_ East/West and name of river, stream or water body \_\_\_\_\_
- F. Will cleanup water be used for another purpose, such as livestock, irrigation, etc.?  Yes,  No  
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

**OTHER WELLS**

**(SECTION H)**

- A. Purpose of water use Duck Pond Filling
- B. Will the well be used for one calendar year or less?  Yes,  No
  - a. If Yes, list approximate dates (month/day/year) the well will be in operation: Start \_\_\_\_\_ End \_\_\_\_\_
  - b. If No, list the approximate dates (months) or seasons of the calendar year that well is expected to be in peak or highest use. Oct - Feb
- C. Legal description of water discharge location: NW ¼ of the NE ¼ of Section 20, Township 16 North, Range 9 East West and name of river, stream or water body NA

**This form must be completed in full and accompanied by a non-refundable \$50.00 filing fee** (payable to the Lower Platte North Natural Resources District). In addition, for Class 3 well permits an added fee of \$250.00 is required for District review. For Class 4 well permits an added fee of \$500.00 is required for District review. Forward this application and filing fees to:

**Lower Platte North Natural Resources District  
P.O. Box 126  
Wahoo, NE 68066  
Phone: (402) 443-4675**

Please take the time and fill out the information correctly. The District will return an incomplete or defective application, with 60 days being allowed for resubmission. The District shall issue all permits with conditions attached, or denied not later than 30 days after receipt of a complete and properly prepared application.

### **WATER WELL PERMIT RESTRICTIONS**

1. A well permit is required prior to the construction of a water well. If construction of a water well is commenced prior to obtaining a permit, a late permit must be completed and accompanied by a \$250.00 application fee. Construction or operation of a new water well without an approved water well permit shall result in the District issuing a 'cease and desist order' against further construction or use of that water well.
2. An irrigation well shall not be constructed within 1000 feet of any registered industrial or public water supply well or within 600 feet of a registered irrigation well; A public water supply well shall not be constructed within 1000 feet of any registered irrigation, industrial or other public water supplier's well; An industrial well shall not be constructed within 1000 feet of any registered irrigation, industrial or public water supply well pursuant to §46-609 and §46-651. These spacing restrictions shall not apply to water wells owned by the same person. Any person may apply to the Nebraska Department of Natural Resources for a special permit to drill a water well without regard to the spacing requirements pursuant to §46-653. The District may adopt stricter well spacing requirements based on different aquifer subareas. Check with the District office if you have any questions.
3. This permit does not register the well with the Department of Natural Resources. All wells are required to be registered by the well driller with the Nebraska Department of Natural Resources within 60 days after the well is completed.
4. A replacement water well is one, which replaces an abandoned water well that has been operated within the last three years, and is constructed to water the same tract of land as the abandoned water well that is being replaced. A replacement water well must be pumping from a comparable aquifer and yield approximately the same gallons per minute and total annual water uses as the original water well it is replacing. As of January 1, 1997, both new and replacement wells need a permit from the Lower Platte North Natural Resources District.
5. Consumptive water use in acre-inches is determined from the Department of Natural Resources (DNR) Net Corn Crop Irrigation Requirement map or a similar map produced by the University of Nebraska.
6. If the well is being replaced it must be properly abandoned according to state guidelines. A copy of these guidelines is available from the Lower Platte North NRD.
7. If the water well is not constructed within a one-year period from the date of approval, a new permit is needed.
8. Water wells may not be drilled within 50 feet of a stream bank without first obtaining a surface water right for that water withdrawal from the Department of Natural Resources pursuant to §46-637.
9. Any person who, on or after January 1, 1997, commences or causes construction of such a well for which the required permit has not been obtained, or who knowingly furnishes false information regarding such a permit, shall be guilty of a Class IV misdemeanor pursuant to §46-602.01 and §46-613.02.
10. Permits are not required for test holes or temporary dewatering wells (30 days or less). Permits are needed for water wells designed to pump 50 gallons per minute or less in Level 3 and Stay management areas.
11. Tax assessor records submitted with water well permit must include map, parcel number and an accurate account of current land use, such as irrigated acres.
12. With the well permit application, submit an aerial photograph with markings to show the location of the water source(s) and the location of where the water is to be used.
13. Any person, who knowingly furnishes false information regarding a water well permit, shall be subject to the imposition of penalties imposed through the controls adopted by the District pursuant to §46-746.
14. All new or replacement water wells must install a District approved flow meter and report water pumped annually in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31<sup>st</sup> of each following year.
15. If multiple water sources are used, landowner must supply flow records from each water source in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31<sup>st</sup> of each following year.
16. Water well permit applications require that the applicant or operator of irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells by NRD certified.

**\*\* Landowners must list new irrigated acres with the County Assessor, update the DNR well registration, and comply with any additional conditions within 90 days of LPNNRD approval of this water well permit. LPNNRD staff may perform a site visit to verify information provided in the well permit application. \*\***

**Approved List of Propeller Flow Meters**  
**Lower Platte North Natural Resources District (LPNNRD)**  
**Effective: April 11, 2022**



**Approved List of Propeller Flow Meters and Required Conditions**

**LPNNRD requirements for all propeller flow meters:**

- Anti-reverse flow feature to prevent backflow.
- Follow manufactures installation recommendations taking into account in-pipe jetting or non-jetting flow conditions. (Correct installation of the flow meter is critical to getting an accurate reading. Most meters require a straight pipe before and after the flow meter that is at least equivalent to five times the pipe diameter in order to obtain an accurate flow measurement. Doing the installation correctly the first time saves money in the long run).
- Straightening vanes are required according to manufacturer’s installation recommendations for in-pipe jetting or non-jetting flow conditions.
- Meter must be positioned to ensure water totally fills the pipe, such as a level pipe or positioned on a riser.
- Meter must be configured: to inside and outside diameter of the pipe, material of the pipe, meter used that will operate within minimum and maximum output flow rates of the well, horizontal or vertical installations, and unobstructed straight run distance upstream and downstream of meter and in most cases straightening vanes (or other flow straightener) will be necessary.
- Meter totalizes flow in acre inches and flow meter dial is in gallons per minute.
- A flow meter must be dedicated to each individual well. (Exceptions will be made if several wells are used to provide enough water to operate a single irrigation system such as a pivot or gated pipe. In these situations a flow meter placed at the central location where all water can be metered is acceptable).

<b>Manufacturer</b>	<b>Model</b>	<b>Notes</b>
McCrometer	McPropeller	All propeller models
Sparling	Propeller saddle meter	Model 312 propeller meter
Geysler	Saddle meter	All propeller models for Farmland Irrigation

**LPNNRD prefers the following added features for all propeller flow meters:**

- Over-run bearing (or extra bearing) for smother operation and to extend life of the meter
- Canopy cover to protect meter

LPNNRD will inspect systems for proper installation of flow meters

# 07-13N-10E Saunders County

DRAFT MAP. ADDITIONAL WELL PERMIT INFORMATION PENDING.



The estimated location of the permitted well has been plotted above. Registered wells in the vicinity of the permitted well have also been plotted. Areas within the buffer polygons are subject to spacing protection. If the well will be drilled in an alternate location than what is shown on the map, please contact LPNDRD so staff can reassess Nebraska regulatory spacing requirements.

2/27/24  
2022 Aerial Photo  
Data: LPNDRD, NeDNR, FSA  
Projection: NAD 1983 StatePlane Nebraska FIPS 2600 (US Feet)

-  Well permit location
-  DNR Registered Wells
-  Registered Well DNR (600 ft)





February 11, 2025

**NDEE PERMIT No. W-141-2023  
FACILITY ID 57883**

Lezlie Thomas  
Lake Allure Subdivision  
20 Thomas Lakes  
Ashland, NE 68003

Re: **Drinking Water** – Lake Allure Subdivision – W-141-2023 – **Revised Plans and Specifications** – Well 2022-2 Switch to Submersible – (EEG Project No. 21-14)

Dear Ms. Thomas:

Documents describing the above-referenced project have been reviewed and are hereby approved with respect to features of sanitary significance. This approval does not supersede any other NRD, local, state, or federal requirements.

This approval is subject to any stipulations listed below. Written approval must be obtained from this Department before proceeding with any major changes from the project documents as approved. One set of the submitted documents is being made a part of this Department's records.

No project that is considered major construction shall be placed into service prior to a final inspection and approval by the Department. The only exception to this requirement is interior tank coating and water distribution main projects. The Department may allow these projects to be placed into service when requested by the owner and/or the engineer. The request to place into service must be accompanied with a certification of project completion by the engineer and copies of satisfactory bacteriological testing results for the project. The Department may be issuing administrative penalties, as authorized in Neb. Rev. Stat. § 71-5304.01, to any system that violates this regulation.

Sincerely,

Cyril Martinmaas, P.E., Engineering Section Supervisor  
Permitting & Engineering Division  
Nebraska Department of Environment and Energy

CJM:KDT:CNW

xc: Jacob F. Zimmer, P.E. (ec)  
Mike Adair, Lake Allure Subdivision (ec)  
Chris Brader, NDEE (ec)

XXXX In accordance with Title 179 NAC 7-005.01, documentation of the contract or actual cost of the project shall be provided to this Department for the purpose of determining the final fee amount. Payment of the final fee amount shall be made to this Department.

XXXX In accordance with Title 179 NAC 7-003.02, record drawings must be submitted to the Department. PDF (Portable Document Format) copies are preferred.

XXXX Discharge of chlorinated water from disinfection procedure must follow Best Management Practices (BMPs) for meeting surface water quality standards under the National Pollutant Discharge Elimination System (NPDES). For assistance, contact the NPDES Compliance Section at 402/471-1367.

1. Water quality samples shall be collected by the public water system certified water operator or the system owner's designated representative. When ordering water sample kits from the Nebraska Department of Health and Human Services, Division of Public Health (Department) Laboratory, the following information must be provided to the laboratory personnel for the new well test kits:
  - A. PWSSID: NE3121353
  - B. CLIENT ID NUMBER: 2022-2
  - C. LOCATOR: WELL 20222P
2. Water quality shall meet all applicable requirements in Section 002 of Title 179 NAC 2 before the well is placed into service. All water quality testing shall be done by the Department Laboratory, a laboratory certified by the Department Laboratory or one that has entered into an agreement with the Department Laboratory as per Title 179 NAC 3. A copy of the water quality analysis reports shall be submitted by the public water system to this Department upon request.
3. The per-and polyfluoroalkyl substances (PFAS) rule was recently released by the Environmental Protection Agency and can be found here: <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>. Under this rule, community water systems and non-transient, non-community water systems will be required to sample for and be in compliance with the PFAS maximum contaminant levels. Each Public Water System (PWS) must have initial sampling completed by 2027. **PWSs are strongly encouraged to begin sampling immediately, especially for proposed sources including test wells and new production wells.** If you have questions about appropriate sampling protocols or analytical methods, please reach out to Logan Morgaridge at 402-471-1010 or at [logan.morgaridge@nebraska.gov](mailto:logan.morgaridge@nebraska.gov).
4. A copy of the well test pumping data should be submitted to this Department for our review.



December 12, 2022

Jacob Zimmerer, PE  
Eagle Engineering Group  
12100 West Center Road, Suite 803  
Omaha, NE 68144

Re: PWS – Lake Allure Subdivision - Ashland – **Well Site Approval** – Well Site #2022-2

Dear Mr. Zimmerer:

Tim Thares of this Department performed an inspection of the above-referenced well site, located at GPS coordinates N 41° 06' 19.2", W -96° 20' 34.6" on November 30, 2022. Based on observations at the time of the inspection, the information submitted on December 8, 2022, and in accordance with Title 179 NAC 7, well site #2022-2 are hereby approved. Should the site locations or site conditions change, please notify this office immediately.

If you have any questions, please feel free to contact me at 402/471-0522 or chin.chew@nebraska.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chin F. Chew".

Chin F. Chew, P.E., Engineering Section Supervisor  
Permitting & Engineering Division  
Nebraska Department of Environment and Energy

CFC:CJM

xc: Lezlie Thomas, Lake Allure Subdivision - Ashland (ec)  
Tim Thares, NDEE (ec)

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL  
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

2/14/24  
Sargent  
Drilling  
# 66070  
\$50-

Permit No. <u>LPN-024-1875</u>	Date Approved/Denied _____	NRD Representative <u>D1</u>
Permit Type: <u>New</u> , Replacement or Late	Date Received <u>2-14-24</u>	Paid: Cash or <u>Check</u>
Date Post-inspected _____	Registration No. _____	Updated Form: May 2008

ALL APPLICANTS SEEKING A WATER WELL PERMIT MUST COMPLETE PAGES 1 AND 2, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 1 - 4 WELL PERMIT)  
WATER WELL PERMITS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 3 WELL PERMIT)  
WATER WELL PERMITS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 4 WELL PERMIT)

**1. NAME AND ADDRESS OF APPLICANT:**

Lake Allure Subdivision  
264 Thomas Lake Rd.  
Ashland NE 68003

Home Phone: ( 402 ) - 944 - 7852  
Cell Phone: ( \_\_\_\_\_ ) - \_\_\_\_\_ - \_\_\_\_\_  
Landowner Name: \_\_\_\_\_  
(if other than applicant)

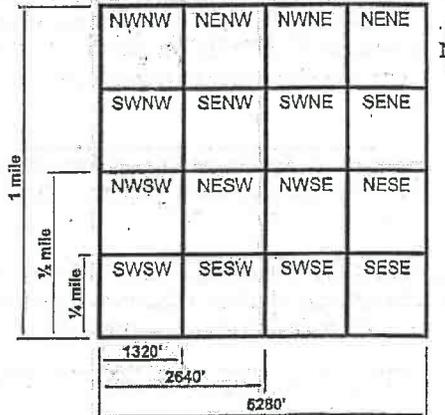
**2. PURPOSE OF NEW WATER WELL (indicate one):**

- Irrigation (Complete section A)                       Dewatering (Over 30 days, Complete section B)  
 Livestock (Complete section C)                       Domestic (Irr. on one acre or larger, Complete section D)  
 Industrial (Complete section E)                       Public Water Supply (Complete section F)  
 Recovery or Remediation (Complete section G)  
 Other (specify) \_\_\_\_\_ (Complete section H)

**3. IDENTIFY LOCATION OF PROPOSED WELL:**

A. Saunders County, SW of the SE 1/4 of  
Section 7, Township 13 North, Range 10  
East/West. (circle one)

B. The box at the right represents one square mile, (section).  
Indicate with an "X", the proposed location of the well.  
Outline the proposed water use area. If the water is to be  
used outside the above written legal description, give legal  
description of water use area,  
\_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of Section \_\_\_\_\_,  
Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West.



C. The well will be located 617 feet from the  
North/South section line, and will be 1437 feet from  
the East/West section line. Or enter Lat. / Long.  
Latitude Degree \_\_\_\_\_ Minute \_\_\_\_\_ Second \_\_\_\_\_  
Longitude Degree \_\_\_\_\_ Minute \_\_\_\_\_ Second \_\_\_\_\_

**4. REPLACEMENT AND ABANDONED WELL INFORMATION:**

- A. Is this a replacement well?  Yes,  No                      If yes, fill out the rest of this section.  
B. Registration number of well to be replaced: \_\_\_\_\_  
C. Well to be replaced was last operated (month/year): \_\_\_\_\_  
D. Replacement well is \_\_\_\_\_ feet from original well.  
E. Decommissioning of Original well on (month/day/year): \_\_\_\_\_  
F. If water use is for irrigation, list the number of acres watered by the original well: \_\_\_\_\_  
G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well?  
 Yes,  No: If No, list the number of additional acres \_\_\_\_\_ and legal description \_\_\_\_\_ 1/4 of the  
\_\_\_\_\_ 1/4 of Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East/West. (circle one)

- A replacement water well must deliver water to the same tract of land as the original water well, pump from a comparable aquifer, and yield approximately the same gallons per minute and total annual water use as the original water well.

5. SPECIFICATIONS OF INTENDED WELL AND PUMP: April 1, 2024

A. Approximate date when construction will begin (month/day/year): April 1, 2024

B. Expected total well depth: 85 feet.

C. Well Casing Diameter: 16 inches.

D. Pump Column Diameter: 6 inches.

E. Estimated pumping capacity: 300 GPM.

F. Expected total annual water use in Acre Inches / Year \_\_\_\_\_ or Total Gallons / Year \_\_\_\_\_

G. The system is to be powered by  Electric  Fuel

H. Will the well be used in a system with other wells?  Yes,  No. If Yes, How many \_\_\_\_\_  
 List well registration number and legal description of each well in Section 6 below.

I. Name of Well Driller: Sargent Drilling (Please attach test hole log, if available.)

6. List additional information requested in this Section or attached additional sheet.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Addition information and requirements for Lower Platte North NRD review.
- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
  - Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
  - All new and replacement water wells must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31<sup>st</sup> of the following year.
  - Water well permit conditions maybe required for approval by the Lower Platte North NRD for each individual well.

8. I certify that I am familiar with the information contained in this application, and it's restrictions, rules and regulations and that to the best of my knowledge and belief such information is true, complete and accurate.

Date 2/9/24 Signature of Applicant [Signature]

Signature of Well System Operator, if different than Applicant \_\_\_\_\_

NRD Certification Number of Landowner or Operator \_\_\_\_\_ (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

9. Lower Platte North NRD Use Only. Comments by District Representative.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## United States Citizenship Attestation Form

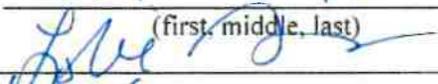
For the purpose of complying with Neb. Rev. Stat. §§ 4-108 through 4-114, check one of the following and attest to your response by providing your name, and signing and dating this form.

I am a citizen of the United States.

— OR —

I am a qualified alien under the federal Immigration and Nationality Act, my immigration status is \_\_\_\_\_ and my alien number is \_\_\_\_\_, and I agree to provide a copy of my USCIS documentation upon request.

I hereby attest that my response and the information provided on this form and any related application for public benefits are true, complete, and accurate and I understand that this information may be used to verify my lawful presence in the United States.

PRINT NAME Ledie A Thomas  
(first, middle, last)  
SIGNATURE   
DATE 2/19/24



Tri City Meters, Inc.  
 210 E. Front St.  
 P O Box 126  
 Alda, NE. 68810



# SALES INVOICE

Date	Invoice #
3/3/2025	20777

Please Remit Payment to: P.O. Box 126 Alda, NE. 68810-0126

Bill To:

Ship To:

Lower Platte North NRD  
 511 Commercial Park Rd  
 Wahoo, NE 68066

P.O. No.	Terms	Ship Date	Ship Via
	Due on receipt	1/29/2025	

Item	Quantity	Description	Rate	Amount
LPNRD Meter Ser...	319	2024 Meter Service Meter Service work in LPNRD Mechanical Meters	80.00	25,520.00
LPNRD Meter Ser...	23	Meter Service work in LPNRD Electronic Meters Senninger/Seametrics  Batteries to be billed to owners separately.	95.00	2,185.00
<b>Total</b>				\$27,705.00

Payment Terms: - Invoice amount shall be due and payable in thirty (30) days from invoice date.  
 - Interest at 1.5 percent per month shall be accrued on any unpaid past due balance.

This Invoice is Subject to the Policies, Terms, and Conditions Set Forth on the Reverse Side.

Phone #	Fax #	E-mail
308-379-2013	308-382-1811	tricitymeters@gmail.com

2025

# Lower Platte North NRD Basin Coalition IMP Report



Annual Report

Lower Platte North Natural Resources District

1/1/2025

# 2025 Lower Platte North Natural Resources District Lower Platte Basin River Plan Report

## Introduction

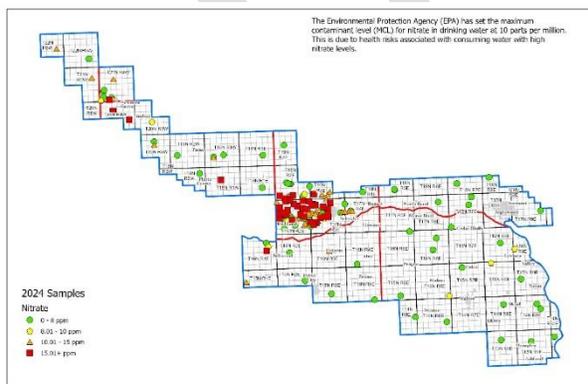
The report period is from January 1, 2024 to December 31, 2024.

## Water Quality Activities

The Lower Platte North (LPN) District implemented a Phase 4 water quality management area within the Richland-Schuyler Phase 3 management area. This Phase 4 area shows nitrate levels over 15 ppm or uranium contamination over 30 ppb in 50 percent of the sampled wells. This new area will require water flow meters on all high-capacity irrigation wells, nitrogen recommendations and an 80 pound maximum application of nitrogen fertilizer prior to May 1. No nitrogen can be applied before March 1.

The District received a WSF grant to conduct cost-share practices in the Schuyler-Richland Management Area. Some of the practices include gravity to pivot/SDI conversions, water flow meters and cover crops. Some cost-share programs work jointly with NRCS cost-share practices. Lower Loup NRD and Lower Platte North completed an age-dating project with USGS in the same vicinity of the management area.

Staff have done extensive drinking water sampling within this area and encouraged producers to apply for RO cost share through the state program, when samples exceeded 10 ppm. LPN implemented a drinking water filtering program for domestic wells that are over 8 ppm or for other contaminants.



2024 LPNNRD Nitrate Sampling

The map shows the nitrate results from 2024 with emphasis in the management areas and Shell Creek.

## Water Quantity Activities

The LPNNRD Board in December voted to continue the allocation of 30 inches over 3 years in the LPN SQS #2 north of Columbus. The Water Committee also discussed boundary considerations and rule changes.

The three Lower Platte Basin NRDs along with NeDNR continue working on a basin wide groundwater modeling project. This project is planned to be completed in 2025-26.

### **Well Permits Issued Approved, Cancelled or Denied**

The Lower Platte North issued 41 wells permits in 2024. There were 40 irrigation wells, of which 21 were replacements and 1 other/wildlife/wetlands.

### **Water Use Information for Irrigation Wells**

Total Number of Flow Meters – 1420 which 1263 are on irrigation systems.

Water Use from the Special Quantity Subareas (Allocated areas)

Overall Average: (Inches per acre)

SQS#1 – 3.51" in/ac

SQS#2 – 4.46" in/ac.

Rest of the District: 5.08

### **Groundwater Management Plan Update**

The District is in the process of completing the update to the Groundwater Management Plan. Some of the items that was recommended for the Board to review were nitrate and water level triggers, variance scoring sheet and locations for new monitoring wells. The updated plan includes new assessment and aquifer sub-area maps.

### **Drought Management Plan**

The Lower Platte North NRD is currently developing a district-wide Drought Management Plan. The Drought Management Plan will help to reduce district-wide impacts during drought events and aid the NRD in water resource management. This project will include establishing drought monitoring and forecasting protocol, identifying potential best management practices, creating educational and awareness materials, and identifying future actions to reduce drought impacts.

A significant part of the planning process will focus on local communities and their public water systems to evaluate their drought vulnerabilities and understand available community drought ordinances. The plan will include the development of drought mitigation strategies and other

recommendations based on the outcomes of the drought risk analysis and meetings with communities. Also included with the plan will be a community engagement materials kit and sample drought ordinances for communities to utilize and update to fit their needs. The outcome will be a more sustainable and stable water supply for all uses across the district.

**Public Outreach**

The District conducted 6 nitrogen/irrigation certification meetings for producers with 200-300 in attendance. The NRD also conducted an open house in the Schuyler-Richland Nitrogen Management Area to discuss the nitrate and uranium concerns. The District conducted open houses discussing the Groundwater Management Plan updates. The NRD has been involved with numerous school events with one event with NeDNR involvement. The District publishes a newsletter that goes into the local newspapers with emphasis on the new water quality management area, drought concerns and nitrates.

**Water Demand Inventory**

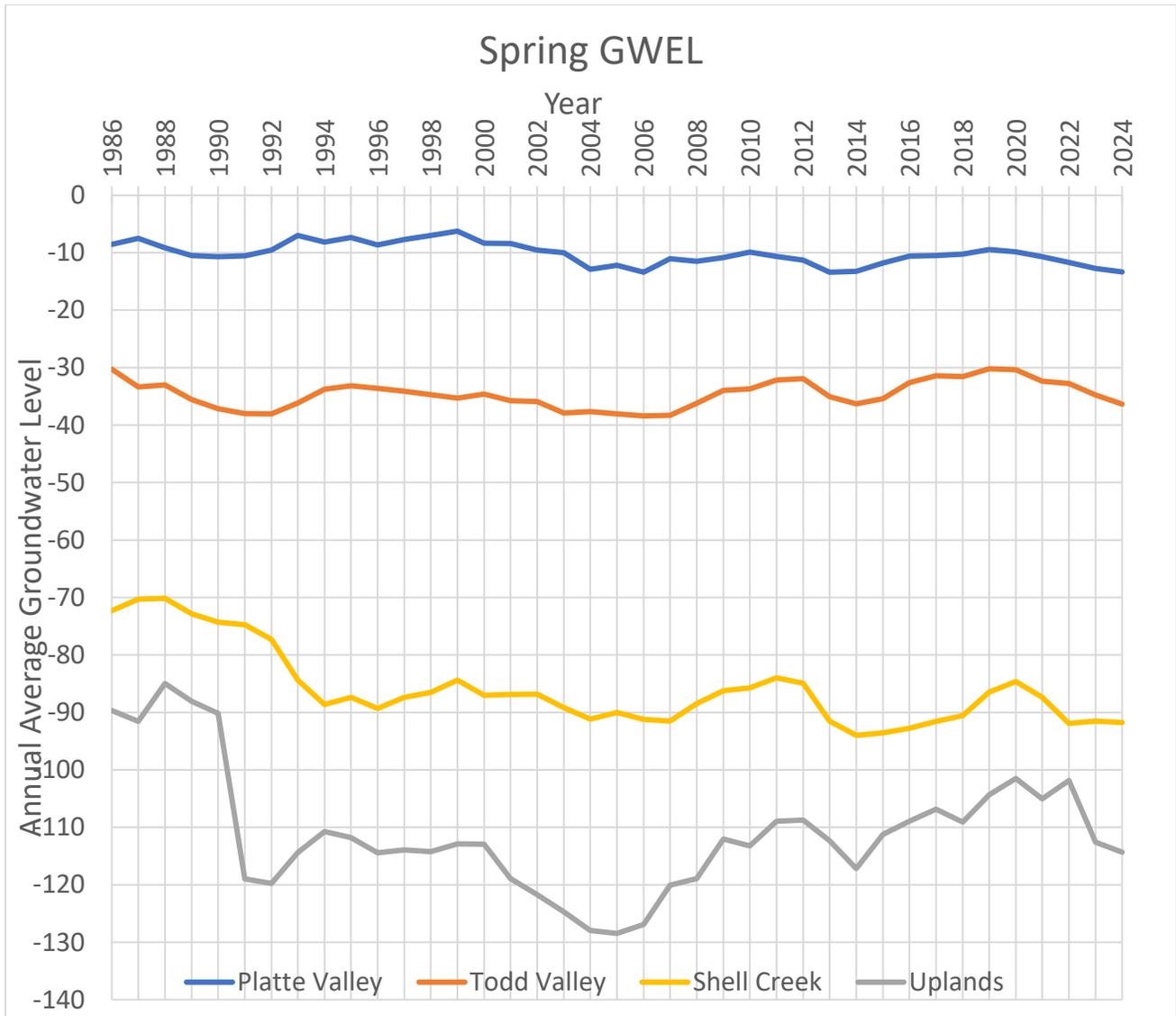
The District is in the eighth year to obtain required water use reports for municipalities. Industrial and other high-capacity wells report voluntarily, unless they are drilled after 2012.

**Water Supply Inventory and Groundwater Elevation Data**

Groundwater Level Summary Comparison of Spring 2023 to Spring 2024

Subarea	Number of Wells Measured	Median Change (Feet)	Mean Change (Feet)	Number of Wells Increased in Level	Number of Wells Unchanged (+ or - 0.3 ft)	Number of Wells Decreased in Level
Platte Valley	82	-0.41	-0.60	11	27	44
Todd Valley	23	-1.67	-1.62	0	1	22
Uplands	60	-2.02	-1.77	3	1	56
Shell Creek	46	-0.93	-0.22	10	4	32
				11.4%	15.6%	73.0%
			Spring 2022 to Spring 2023	4.0%	4.5%	91.5%

Lower Platte North static water measurements show a concerning trend like most of Eastern Nebraska.



**Water Transfer Permits 2024 Granted:**

None in 2024

**Depletions and Groundwater Consumptive Uses Voided in 2024:**

No sites were voided in 2024.

**Stream gage measurements on District Maintained Gages:** Lower Platte North gages are joint projects with USGS or NeDNR. LPN has 5 installed cameras on the lower part of Platte River with assistance from the USGS.

**Water Banking Activities:** None for 2024.

**Streamflow Accretion Activities (new projects, conjunctive management projects, etc.):** None for 2024

## Municipal Water Uses

City-Village-Town	Total Gallons (2023)	Total Gallons (2024)	Population
Ashland	190,022,000	189,872,000	3,262
Bellwood		Waiting on Response	
Newman Grove	35,491,200	32,205,200	721
Lindsay	88,379,600	65,992,600	283
Platte Center	22,401,271	19,348,203	336
David City (Bruno included)	157,788,873	163,436,066	3,024
Wahoo (Colon Included)	(2022) 251,984,510	269,693,307	4,987
Yutan	44,848,700	49,132,000	1,446
Mead	(2022) 17,980,562	20,280,316	617
Fremont	4,699,011,000	9,458,948,000	27,230
North Bend	68,283,000	64,440,000	1,200
Schuyler	435,450,000	376,856,000	6,547
Cedar Bluffs	NA	25,147,232	620
Prague	11,420,000	9,639,000	291
Weston	(2022) 22,800,800	13,948,027	250
Malmo	NA	1,980,000	96
Ithaca	4,000,000	4,033,000	168
Abie	(2022) 3,045,800	2,576,600	60
Memphis		Waiting on meeting	
Lincoln (Within LPNNRD)	5,035,928,236	5,841,820,110	294,757
MUD West (Within LPNNRD)	10,097,525,000	10,334,804,000	656,522
Morse Bluffs	3,949,000	3,600,000	130

Lower Platte North Rural Water Systems supplies water to Bruno and Colon with David City and Wahoo supplying the water.

## **Certified Acres**

All Irrigation	All Irrigation Ground	All Irrigation Surface	All Irrigation Comingled
Boone	28551.41	0	0
Butler	57867.65	674.85	373.27
Colfax	54694.53	238.65	1003.34
Dodge	51906	84.53	599.1
Madison	5848.86	0	0
Platte	94124.38	793.79	1090.89
Saunders	109088.9	2617.14	2050.97
Total	402081.73	4408.96	5117.57
HCA Irrigation	HCA Irrigation Ground	HCA Irrigation Surface	HCA Irrigation Comingled
Boone	28551.41	0	0
Butler	45699.18	605.15	84.45
Colfax	47794.65	202.35	1003.34
Dodge	51906	84.53	599.1
Madison	5848.86	0	0
Platte	80508.05	793.79	1090.89
Saunders	84241.05	2545.25	1819.39
Total	344549.2	4231.07	4597.17
Non-HCA Irrigation	Non-HCA Irrigation Ground	Non-HCA Irrigation Surface	Non-HCA Irrigation Comingled
Boone	0	0	0
Butler	12168.47	69.7	288.82
Colfax	6899.89	36.3	0
Dodge	0	0	0
Madison	0	0	0
Platte	13616.33	0	0
Saunders	24777.12	71.89	231.58
Total	57461.81	177.89	520.4

## New Depletions and Groundwater Consumptive Uses 2024 Granted:

NRD Transaction ID	County	Township	Range	Direction	Section	Application Type	Change Date	Area (acres)	Use of Irrigated Acres	SDF	Acre Feet Depletion
LPN-V-024-0647	Platte	19	3	W	14	expansion	10/15/2024	4.5	Crop Production	0.22	0.24
LPN-V-024-0645	Colfax	17	2	E	6	expansion	10/15/2024	31.70	Crop Production	0.59	4.22
LPN-V-024-0651	Saunders	17	6	E	35	expansion	10/15/2024	20.00	Crop Production	0.73	3.29
LPN-V-023-0624	Boone	22	6	W	13	new	10/15/2024	135.00	Crop Production	0.42	3.31
LPN-V-024-0649	Boone	21	5	W	16	expansion	10/15/2024	68.40	Crop Production	0.23	1.68
LPN-V-023-0604	Boone	21	5	W	15	expansion	10/15/2024	75.00	Crop Production	0.59	1.46
LPN-V-024-0642	Saunders	17	6	E	32	expansion	10/15/2024	51.50	Crop Production	0.78	9.06
LPN-V-024-0643	Saunders	15	8	E	10	new	10/15/2024	80.50	Crop Production	0.56	10.15
LPN-V-023-0596	Platte	19	3	W	26	new	10/15/2024	135.00	Crop Production	0.80	8.96
LPN-V-024-0639	Platte	20	3	W	19	expansion	10/15/2024	9.40	Crop Production	0.26	0.16
LPN-V-024-0648	Saunders	16	6	E	4	expansion	10/15/2024	27.60	Crop Production	0.92	5.68
LPN-V-024-0650	Saunders	14	9	E	30	expansion	10/15/2024	103.20	Crop Production	0.59	13.79
LPN-V-021-0547	Platte	18	2	W	10	expansion	10/15/2024	34.00	Crop Production	0.94	6.00
LPN-V-024-0646	Platte	19	3	W	2	new	10/15/2024	136.60	Crop Production	0.24	7.51
LPN-V-024-0637	Boone	22	5	W	15	new	10/15/2024	137.20	Crop Production	0.13	2.60
LPN-V-023-0603	Boone	22	5	W	27	new	10/15/2024	138.00	Crop Production	0.43	1.80
LPN-V-021-0532	Madison	21	4	W	17	new	10/15/2024	133.00	Crop Production	0.68	1.02
LPN-V-023-0608	Madison	21	4	W	22	new	10/15/2024	70.00	Crop Production	0.69	0.50
LPN-V-021-0546	Platte	19	2	W	33	expansion	10/15/2024	130.00	Crop Production	0.80	13.63
LPN-V-023-0618	Platte	20	3	W	4	new	10/15/2024	145.00	Crop Production	0.63	0.87
LPN-V-023-0595	Madison	21	4	W	15	new	10/15/2024	130.00	Crop Production	0.64	0.81
LPN-V-023-0630	Saunders	13	9	E	15	new	10/15/2024	60.00	Crop Production	0.86	11.57
LPN-V-023-0606	Madison	21	4	W	17	new	10/15/2024	122.00	Crop Production	0.68	1.19
LPN-V-023-0619	Madison	21	4	W	15	new	10/15/2024	140.00	Crop Production	0.64	0.79
LPN-V-023-0612	Butler	16	2	E	32	expansion	10/15/2024	40.00	Crop Production	0.68	6.14
LPN-V-024-0638	Madison	21	3	W	6	expansion	10/15/2024	35.00	Crop Production	0.14	1.08
LPN-V-024-0640	Madison	21	4	W	35	expansion	10/15/2024	63.40	Crop Production	0.22	0.48
LPN-V-022-0570	Platte	18	2	W	8	expansion	10/15/2024	70.00	Crop Production	0.86	9.66
LPN-V-023-0613	Butler	17	4	E	32	new	10/15/2024	17.00	Crop Production	0.78	3.00
LPN-V-022-0582	Colfax	17	4	E	2	new	10/15/2024	130.00	Crop Production	0.84	24.58
LPN-V-024-0641	Butler	16	3	E	13	new	10/15/2024	61.10	Crop Production	0.55	7.59
LPN-V-021-0541	Saunders	15	9	E	34	new	10/15/2024	68.00	Crop Production	0.90	13.79
LPN-V-023-0611	Saunders	16	6	E	22	expansion	10/15/2024	35.00	Crop Production	0.89	7.02
<b>Total Acres</b>								<b>2632.60</b>		<b>Total Acr</b>	<b>183.63</b>

## Depletion Credits

The Lower Platte North will be taking credit for LPN-2 (G-164643) in SESW S5-19N-2E, Platte County. The tract was new expansion of acres for 30 acres, SDF-0.96, NIR-0.75 for a depletion of 6.48 AF. This tract was included in the 2019 report which is in LPN Platte - Colfax Quantity Management Area but not within the HCA area.



February 4, 2025  
 Invoice No: 29075

<b>Invoice Total:</b>	<b>\$14,929.09</b>
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Daryl Andersen  
 Lower Platte North NRD  
 511 Commercial Park Road  
 Wahoo, NE 68066-0126

**Please Remit To:**  
**LRE Water**  
**1221 Auraria Pkwy**  
**Denver, CO 80204**  
**(303) 455-9589**  
**billing@LREwater.com**

Invoice Email: dandersen@lpnrd.org  
 Project No.: 5036LPN03  
 Project Name: LPNNRD GW Management Plan

**Professional Services through January 25, 2025**

Task 02 Stakeholder Involvement

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Mohr, Jonathan	25.00	207.00	5,175.00	
Totals	25.00		5,175.00	
<b>Total Labor</b>				<b>\$5,175.00</b>
			<b>Total this Task</b>	<b>\$5,175.00</b>

Task 04 Plan Review & Presentation

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Mohr, Jonathan	8.00	207.00	1,656.00	
Totals	8.00		1,656.00	
<b>Total Labor</b>				<b>\$1,656.00</b>

**Reimbursable Expenses**

Mohr, Jonathan			400.09	
<b>Total Reimbursables</b>			<b>400.09</b>	<b>\$400.09</b>
			<b>Total this Task</b>	<b>\$2,056.09</b>

Task 06 Review Spring/Fall Wells

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Libra, Jon	14.25	151.00	2,151.75	
Totals	14.25		2,151.75	
<b>Total Labor</b>				<b>\$2,151.75</b>

**Total this Task** **\$2,151.75**

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Task 07 Quantity Trigger & Well Interference Pro

**Professional Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Hume, David	21.75	255.00	5,546.25	
Totals	21.75		5,546.25	
<b>Total Labor</b>				<b>\$5,546.25</b>

**Total this Task** **\$5,546.25**

**Total this Invoice** **\$14,929.09**

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**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>
28712	1/10/2025	6,816.25
<b>Total</b>		<b>\$6,816.25</b>

**Total Now Due** **\$21,745.34**

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March 5, 2025  
 Invoice No: 29310

<b>Invoice Total:</b>	<b>\$6,775.00</b>
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Daryl Andersen  
 Lower Platte North NRD  
 511 Commercial Park Road  
 Wahoo, NE 68066-0126

**Please Remit To:**  
**LRE Water**  
**1221 Auraria Pkwy**  
**Denver, CO 80204**  
**(303) 455-9589**  
**billing@LREwater.com**

Invoice Email: dandersen@lpnrd.org  
 Project No.: 5036LPN03  
 Project Name: LPNDRD GW Management Plan

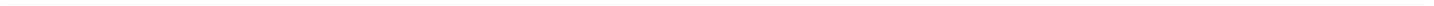
**Professional Services through February 22, 2025**

Task				
Task	04	Plan Review & Presentation		
<b>Professional Personnel</b>				
			<b>Hours</b>	<b>Rate</b>
				<b>Amount</b>
		Libra, Jon	2.25	151.00
		Mohr, Jonathan	9.50	207.00
		Totals	11.75	2,306.25
		<b>Total Labor</b>		<b>\$2,306.25</b>
			<b>Total this Task</b>	<b>\$2,306.25</b>
Task	06	Review Spring/Fall Wells		
<b>Professional Personnel</b>				
			<b>Hours</b>	<b>Rate</b>
				<b>Amount</b>
		Libra, Jon	28.75	151.00
		Totals	28.75	4,341.25
		<b>Total Labor</b>		<b>\$4,341.25</b>
			<b>Total this Task</b>	<b>\$4,341.25</b>
Task	07	Quantity Trigger & Well Interference Pro		
<b>Professional Personnel</b>				
			<b>Hours</b>	<b>Rate</b>
				<b>Amount</b>
		Hume, David	.50	255.00
		Totals	.50	127.50
		<b>Total Labor</b>		<b>\$127.50</b>
			<b>Total this Task</b>	<b>\$127.50</b>
			<b>Total this Invoice</b>	<b>\$6,775.00</b>

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>
29075	2/11/2025	14,929.09
<b>Total</b>		<b>\$14,929.09</b>

**Total Now Due**                      **\$21,704.09**



Test hole/Log ID	Test hole/Log ID	high Ground (feet AMSL)	Low Ground (feet AMSL)	AQ1 Mid (feet AMSL)	AQ1 Thickness (feet)	AQ2 Mid (feet AMSL)
Abie	01-LPN-2025	1560	1405	1400	20	1150
Bellwood	02-LPN-2025	1490	1430	1400	60	1310
Cedar Bluffs	03-LPN-2025	1365	1250	1150	50	1025
David City	04-LPN-2025	1645	1510	1300	50	1160
Fremont		1360	1150	-	-	-
Malmo	01-LPN-2026	1420	1230	1200	20	1050
Mead	02-LPN-2026	1300	1175	1100	100	980
Newman Grove	03-LPN-2026	1940	1650	1650	30	1450
Prague	04-LPN-2026	1500	1338	1300	50	1215
Wahoo		1390	1160	1130	-	1130
Weston	01-LPN-2027	1380	1210	1225	20	1100
Yutan	02-LPN-2027	1315	1115	1140	20	1060
River Influence	03-LPN-2027	1400	1300	1300	50	1220
River Influence	01-LPN-2028	1300	1190	1190	50	1165

**Note:** AMSL is above mean sea level, numbers reported in feet (\* indicates CSD est)

AQ2 Thickness (feet)	Dakota Top (feet AMSL)	Dakota Thickness (feet)	Paleozoics Top (feet AMSL)	Total TH Depth (feet below ground)	# of Monitoring Wells	Total FT of 4in Wells
80	1230	480	750	450	2	570
10-30	1120	500	620	210	3	400
30	1100	300	800	360	3	630
50	1200	500	700	450	2	830
-	1165	450	860	-	-	-
25	1150	345	805	375	2	590
50	1080	200	880	300	2	520
70	950	525	427	400	2	780
80	1250	460	790	360	3	935
-	1100	380	850	-	-	-
50	1150	360	790	320	2	435
50	1060	160	900	340	3	560
100	1220	400	600	220	3	280
100	1165	315	850	220	2	245

imated)

1995 WT	First Bedrock	Deepest Well bottoms	Muni well bottoms	Muni well deepest	TH cost CSD \$10/ft	TH cost CSD \$15/ft
1425	Kgg_1360	1200	1045	413	\$ 4,500.00	\$ 6,750.00
1430	Kgg_1315	1280	1320	129	\$ 2,100.00	\$ 3,150.00
1250	Kd	1050	1140	147	\$ 3,600.00	\$ 5,400.00
1450	1295	1160	1195	431	\$ 4,500.00	\$ 6,750.00
1160-1210	Kd	-	-	-	-	-
1250	Kd	1050	1195	58	\$ 3,750.00	\$ 5,625.00
1250	Kd	1050	1195	58	\$ 3,000.00	\$ 4,500.00
1675	To_1600_Kn_1500	1500	1630	135	\$ 4,000.00	\$ 6,000.00
1325	Kd	1050	1205	137	\$ 3,600.00	\$ 5,400.00
1160	Kd	1080	1080	lities_133ho:	-	-
1225	Kd	1080	1110	178	\$ 3,200.00	\$ 4,800.00
1150	Kd	915	970	245	\$ 3,400.00	\$ 5,100.00
1440_1290	Kc_1335_Kgg_1300				\$ 2,200.00	\$ 3,300.00
1290_1190	Kgg_1300_Kd					
					\$ 37,850.00	\$ 56,775.00

Well Costs \$40/ft	TOTAL TH FT per YEAR	TOTAL Wells per YEAR
\$ 22,800.00		
\$ 16,000.00		
\$ 25,200.00		
\$ 33,200.00	1470	10
-		
\$ 23,600.00		
\$ 20,800.00		
\$ 31,200.00		
\$ 37,400.00	1435	9
-		
\$ 17,400.00		
\$ 22,400.00		
\$ 11,200.00	1100	10
\$ 261,200.00		

## ATTACHMENT #1

### **Test-hole Drilling, Monitoring, and Geophysical Program for the Lower Platte North Natural Resources District**

The Lower Platte North Natural Resources District (LPNNRD) has a complex assemblage of aquifers which supply most of the water used for irrigation and drinking. The LPNNRD has ongoing and future plans to drill test-holes, record down-hole data, construct monitoring wells, and collect geophysical measurements to establish baseline information about groundwater quality, quantity, and aquifer composition.

Conservation and Survey Division (CSD) scientists will perform preliminary hydrogeologic analyses for the drilling, monitoring and survey sites based on existing desktop information and background information provided by the LPNNRD. These will be reviewed with the LPNNRD staff that will be responsible for obtaining landowner permission for site access for test-hole drilling, monitoring well installation (if applicable) and geophysical measurements (if applicable).

CSD will drill the test-holes with mud rotary unless otherwise planned with LPNNRD staff. Samples will be collected to adequately represent the types of material encountered during the drilling operation. These samples will be described both in the field and in the laboratory to determine the lithologic composition and stratigraphic nomenclature of the test hole. The LPNNRD will provide staff on-site during drilling to interact with the public and assist the geologist(s) as needed. Once the interpretation phase is complete, the samples will be placed in CSD's test-hole repository for future use and the information obtained will be entered into the statewide test-hole database maintained by the CSD. Some locations may be wire-line cored in lieu of rotary drilling depending on schedule, budget and depth of drilling.

At the completion of drilling operation for each mud rotary test-hole, a geophysical log suite will be obtained using CSD's equipment and personnel. Measurements will include natural gamma, single-point resistance, spontaneous potential, 16- and 64-inch normal resistivity, lateral resistivity, fluid resistivity and fluid temperature. The geophysical log suite will aid in the interpretation of lithology and, in some instances, provide information on hydraulic properties of various units encountered within the test-hole. CSD will conduct ground-based field-scale geophysical measurements and interpretations (if applicable). CSD scientists will utilize desktop information, the test-hole logs and geophysical measurements to design the monitoring wells and define pumping and water level monitoring equipment specifications (if applicable). An additional CSD contribution to the project will be assisting the LPNNRD to obtain accurate well completion logs for each monitoring well and conducting downhole geophysical logs for other hydrogeologic assessments (non-CSD drilling) planned in the LPNNRD in the next three years that align with CSD's ongoing projects (if applicable).

### Budget

<b>Year</b>	<b>Budget Category</b>	<b>Estimated Quantity</b>	<b>Cost</b>
<b>One</b> (FY26)	Equipment (Test-hole Drilling)	1,470 feet	\$12,161.00
	Labor (Drill Crew)		\$3,850.00
	Expenses (Crew and Geologists' Travel)		\$2,000.00
	10% F&A (Office of Sponsored Programs)		
	Subtotal		

<b>Year</b>	<b>Budget Category</b>	<b>Estimated Quantity</b>	<b>Cost</b>
<b>Two</b> (FY27)	Equipment (Test-hole Drilling and Geophysical Measurements)	1,435 feet	\$11,986.00
	Labor (Drilling and Geophysics)		\$3,850.00
	Expenses (Crew and Geologists' Travel)		\$2,000.00
	10% F&A (Office of Sponsored Programs)		
	Subtotal		

<b>Year</b>	<b>Budget Category</b>	<b>Estimated Quantity</b>	<b>Cost</b>
<b>Three</b> (FY28)	Equipment (Test-hole Drilling)	1,100 feet	\$10,093.00
	Labor (Drilling and Geophysics)		\$2,800.00
	Expenses (Crew and Geologists' Travel)		\$2,000.00
	10% F&A (Office of Sponsored Programs)		
	Subtotal		

**Note:** CSD equipment, crew labor and personnel travel costs will be invoiced according to the actual quantities accomplished at current CSD rates. **Invoice amounts will not exceed \$57,000**

